



# I'll Take My Chances with the Jury

- Who is on that jury ???
  - Unemployed
  - Housewives (gender gap)
  - Underemployed
  - Under educated
  - Non-technical

# I'll Take My Chances with the Jury

- Most Juries will not understand the science and technology
  - Inches per second
  - Displacement
  - Frequency spectra
  - Threshold damage
  - BATF
  - Homeland Security

# Real World Examples

## GPS

- Used to document shot location
- Used to document seismograph location
- What if data gets confused or switched ???

*Handwritten signature*

**General Information**

Permit Numbers \_\_\_\_\_  
Shot Numbers **6-23-06**

Customer  **Blast Type- Prod. (to Coal)**  
 Location  **Hole Numbering on Diagram= SEE ATTACHED**  
 Loading Crew **BRAD** **Date(s) of Loading** **06/23/06** **to** **06/23/06**  
 Blaster-in-Charge  **Blaster's Certification No.** **2443**  
 Blast Date **06/23/06** **Time of Blast** **4:35PM** **Type of Material Blasted- SS/SHALE** *Wilson Drillers, LLC*

**Blast Location Information**

Latitude **33** **36.000** **36.600** Longitude **87** **1.000** **0.000** **County** **Jefferson**  
 Seam or Ledge **NICKELPLATE**

**Nearest Protected Structure Information**

I.D. Nearest Structure **Keith 3343 Little Cutoff Dr.** **Distance From Blast** **1165.7 ft.** **Direction From Blast** **135°**

**Weather Conditions @ Time of Blast**

**Precipitation:** **NONE**  
**Atmospheric Conditions=** **CLEAR** **Temperature F=** **89** **Wind Speed, from** **5** **to** **10** **mph**  
**Wind Direction, From** **E**

**Bench Parameters**

**Average Burden-** **10.00** **Average Spacing-** **10.00** **Average Hole Length=** **5.00** **OF, MAX-** **1** **B.F. Type-** **Drill Cuttings**  
**% WET HOLES=** **0%** **Depth-** **5.0** **to** **5.0** **Type(s) Stemming-** **Drill Cuttings** **Back-fill, Avg-** **1.00**  
**MIN STEM-** **3.5** **MAX STEM-** **3.5** **Avg Stemming, FT-** **3.50** **AVG DWM-** **7.875** **MIN DWM-** **7.875** **MAX DWM-** **7.875** **PF=** **1.33** **bcy/lb**  
**NO. HOLES =** **93** **TOT. FT. LOADED=** **465** **TOT. FT. INERT=** **418.5** **FT. DRILLED=** **465**  
**PF=** **0.75** **lb/cy**

**Products Used**

| PRODUCT | SG   | LBS    |
|---------|------|--------|
| PN 1500 | 7.25 | 1227.4 |
|         |      |        |
|         |      |        |
|         |      |        |
|         |      |        |

**Quantities**

| PRODUCT | SG | LBS |
|---------|----|-----|
|         |    |     |
|         |    |     |
|         |    |     |
|         |    |     |
|         |    |     |

**Products Used**

| PRIMER | LBS   | PRIMER    | LBS  |
|--------|-------|-----------|------|
| PENT12 | 68.75 | PENT32    | 0.00 |
| PENT16 | 0.00  | B-FRAC2X8 | 0.00 |
| PENT8  | 0.00  | 1.25X8    | 0.00 |
| PENT8  | 0.00  | 2X8       | 0.00 |

**DETECTORS-** **Curved-Det. 03**

**Seismic/Compliance Information** **Max. Lbs Allowed/Shot=** **449.17**  
**Complete Method-** **Scaled Distance Equation** **Maximum Lbs per Shot Delay=** **28** **Scaled Distance=** **221** **Seismograph Used?** **No**  
**Minimum SD Allowed** **55** **Seismograph Location** **N/A** **Distance to Seis.** **N/A**

| NO SEIS. USED |    |    |     | TRANS. VERT. RADIAL |    |    |    | TRANS. VERT. RADIAL |    |    |    |
|---------------|----|----|-----|---------------------|----|----|----|---------------------|----|----|----|
| NA            | NA | NA | ips | NA                  | NA | NA | Hz | NA                  | NA | NA | dB |

| Hole No. | Hole Depth | Total Lbs. Hole | No. Dets. Hole | Weight Primers /Hole | Top Stem, ft. | Back-fill, ft. | Inert/ deck, FT TOT. | No. Decks/ hole | Max. Lbs Per Charge | Column Load, Lbs |  |  |  | Product used for hole |
|----------|------------|-----------------|----------------|----------------------|---------------|----------------|----------------------|-----------------|---------------------|------------------|--|--|--|-----------------------|
| 1        | 5          | 13.948          | 1              | 0.75                 |               |                |                      |                 |                     |                  |  |  |  |                       |



QUARRY ACADEMY

# BLASTING REPORT

Permit Numbers \_\_\_\_\_

Shot Numbers 4-26-06

Location ~~000~~ (wickie plate)

## Shot Information

Holes Loaded By: \_\_\_\_\_ sw Date Holes Loaded: 4-26-06

Blaster in Charge: \_\_\_\_\_ Certification Number: 02443

Dates Holes Shot: 4-26-06 Times Holes Shot: 4.06 am pm

GPS: Garmin Etrex Latitude: 33 36 25.2 Longitude: 87 01 32.1 County: Jefferson

No. of Persons in Blasting Crew: 4

Nearest Building Types: 54 Shilo Direction from Blast: Southeast Distance from Blast: 4963.

Weather Conditions: Clear Winds: 15-10 mph

Method of Firings: none electronic Circuit Types: none electronic

Holes Spacing (Pattern): 10x10 Explosive Type: Emulsion

Seism Location: NA Seism Reading: NA

Distance: NA Seism Analyst: NA

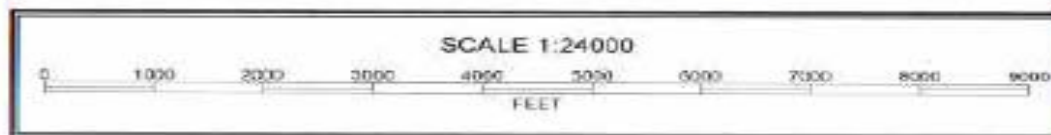
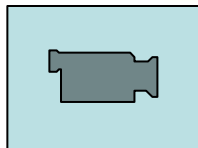
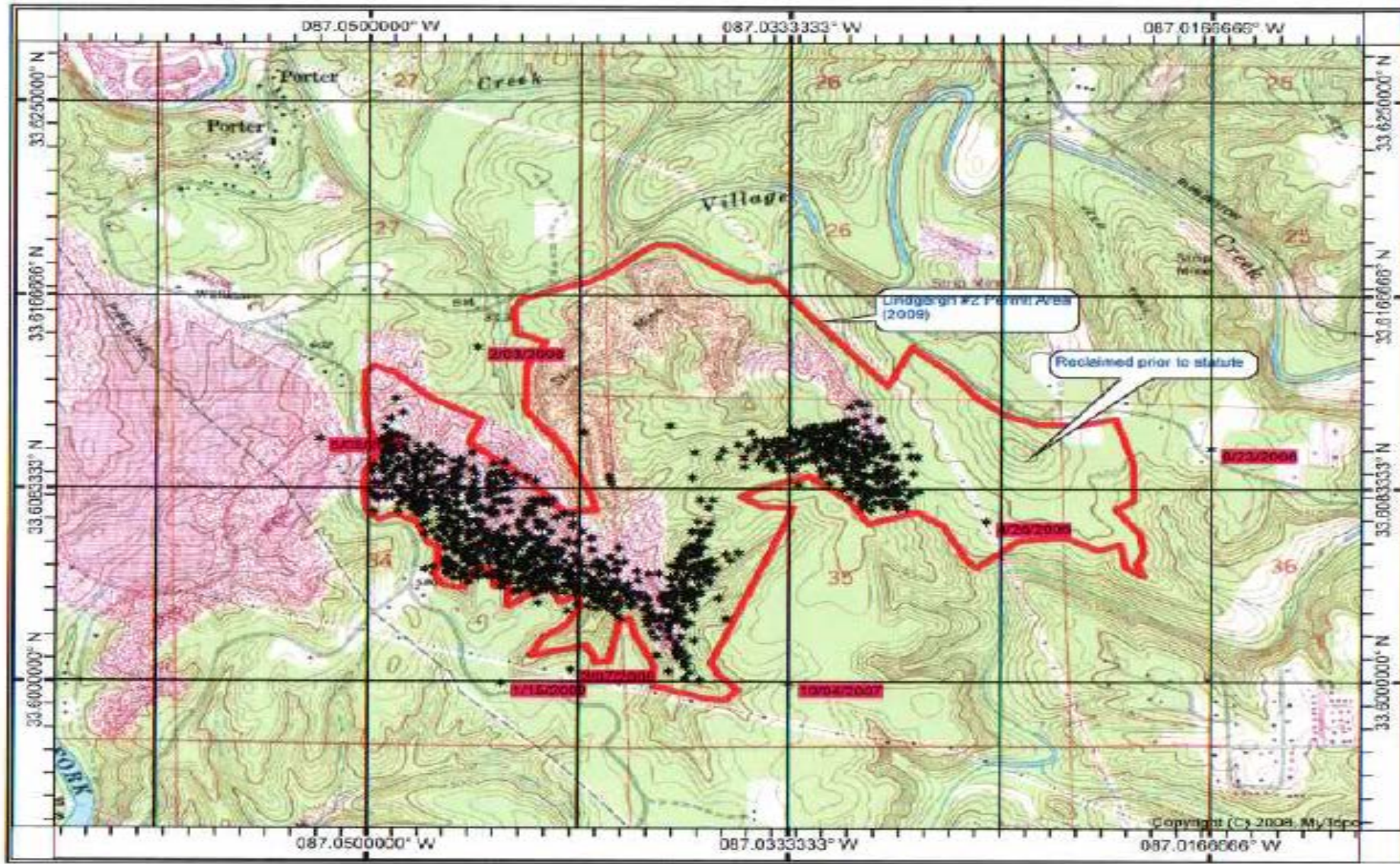
Drill: Ingersoll Hole Diameter: 7 1/8 Type Material Blasted: Shale

Maximum Weight Explosive Detonated per BMS: 137.5

Maximum Weight Explosive Allowed per BMS: 8142

Type of Delay: 500ms Delay Interval: 25ms

| Hole No. | Hole Depth | Pounds Explosives | Caps | Primers | Feet of |     |            | Hole No. | Hole Depth | Pounds Explosives | Caps | Primers | Feet of |     |            |
|----------|------------|-------------------|------|---------|---------|-----|------------|----------|------------|-------------------|------|---------|---------|-----|------------|
|          |            |                   |      |         | Stem    | B/T | Inert Deck |          |            |                   |      |         | Stem    | B/T | Inert Deck |
| 1        | 5          | 13.75             | 1    | 1       | 4       | 25  | 0          |          |            |                   |      |         |         |     |            |
|          |            |                   |      |         |         |     |            |          |            |                   |      |         |         |     |            |
|          |            |                   |      |         |         |     |            |          |            |                   |      |         |         |     |            |



# Nearest Dwelling

- Critical to proving accuracy of documentation.
- Even small variations will be taken out of context.
- Will be checked closely during discovery.



# BLASTING REPORT

Company \_\_\_\_\_ Mine Site A Permit No. P-  
 Date 1-28-09 Time Of Blast 3:57 A.M. / P.M.  
 Blaster \_\_\_\_\_ License No. \_\_\_\_\_ Signature \_\_\_\_\_  
 Weather: Temp. 55°F Wind Direction East Speed 5-10 Conditions Clear  
 # Of Rows 11 # Of Holes 110 Hole Diameter 3/4 Burden 15 Spacing 15  
 Depth Of Holes 30' Mats/Other N/A Backfill 3  
 Type and Length of Stemming 8' stone Material Blasted Shale + sandstone

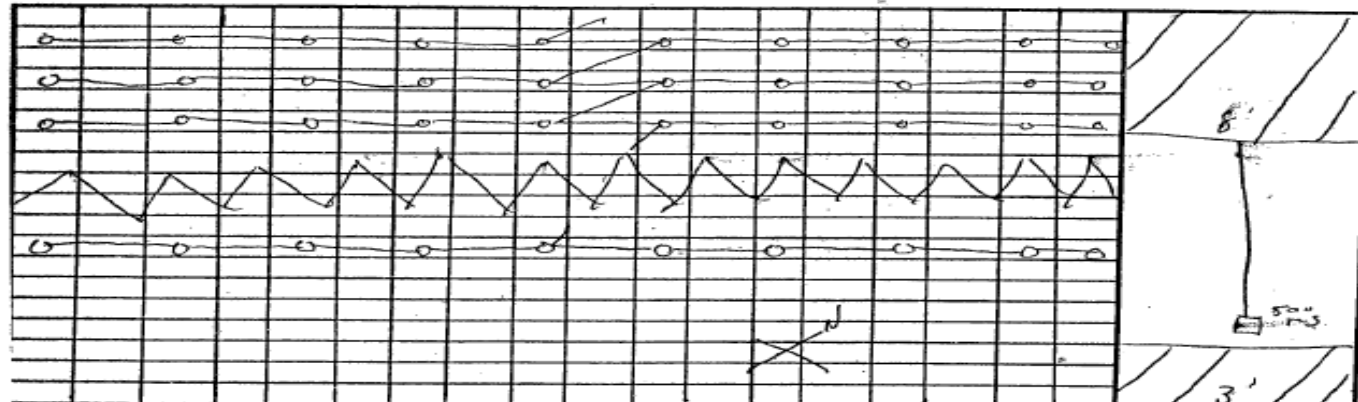
## EXPLOSIVES

| Type              | Size           | Lbs./Foot | Total Lbs.   |
|-------------------|----------------|-----------|--------------|
| <u>Emul. C-35</u> | <u>3/4 lbs</u> | <u>22</u> | <u>46980</u> |
|                   |                |           | <u>82.5</u>  |

Detonators: Type Nonel-Electric nonel Total Explosives Lbs. 46062.5  
 Surface Delays Used 17ms 42ms In Hole Delays Used 30' 50ms  
 Total Explosives/Hole 418.75 GPS Reading 33°44.929N/86°55.178W  
 Distance To Nearest Dwelling/Location 6500' East McDonald ft. Max Lbs. Of Exp. Per 8 ms Delay or More 418.75  
 Max Lbs. Of Explosives Allowed By Scale Distance Per 8 ms Delay or More 743.8  
 Yield 27500 yds. Powder Factor 1.6

\* Northerly Direction Must Be Indicated On Sketch \*

Bore Hole



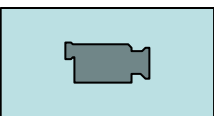
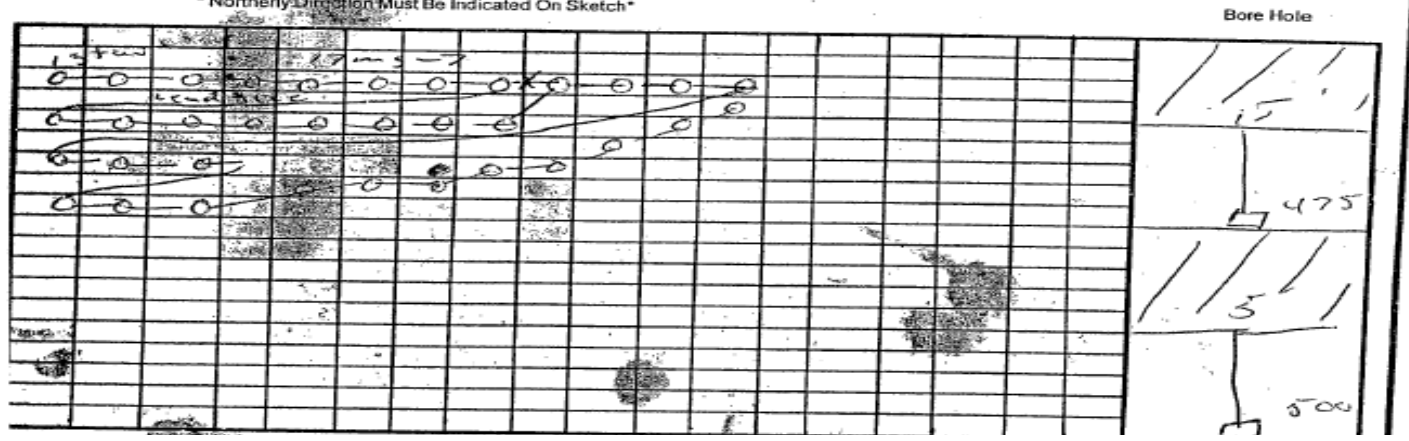
IC. **BLASTING REPORT**

Company MSTR Mine S:            Permit No. P:             
 Date 10-22-04 Time Of Blast 4:00 pm A.M./P.M.  
 Blaster:            License No.            Signature             
 Weather: Temp 83°F Wind Direction SW Speed 0.5 Conditions Sunny  
 # Of Rows 4 # Of Holes 35 Hole Diameter 6 3/4 Burden 18 Spacing 18  
 Depth Of Holes 80 Mats/Other N/A Backfill Ø  
 Type and Length of Stemming 15' Cuttings Material Blasted Stale

**EXPLOSIVES**

| Type        | Size       | Lbs./Foot | Total Lbs.    |
|-------------|------------|-----------|---------------|
| <u>Anfo</u> |            |           |               |
| <u>C-35</u> | <u>3/4</u> | <u>13</u> | <u>27,500</u> |
|             |            |           | <u>52.5</u>   |

Detonators Type Nonel-Electric Nonel Total Explosives Lbs. 27,352.5  
 Surface Delays Used 17ms In Hole Delays Used 40' 475ms 80' 500ms  
 Total Explosives/Hole 390.75 GPS Reading 33°44.96N/98°55.00W  
 Distance To Nearest Dwelling/Location 1,500 East McDonald ft. Max Lbs. Of Exp. Per 8 ms Delay or More 390.75  
 Max Lbs. Of Explosives Allowed By Scale Distance Per 8 ms Delay or More 558.67  
 Yield 33600 yds. Powder Factor .8



# Explosive Inventory/Weights

- Plaintiff attorneys will check
  - Shot reports
  - Magazine inventory
  - Quarry scales
- Any variation can be challenged
- Truck calibration is critical

WEIGHT RECORDED BY

Number BIC 210

**HOWESCALE**

Date 12/20/05

IDENTIFICATION

WEIGHT

|         |        |           |           |
|---------|--------|-----------|-----------|
| 10:25 A | WEIGHT | 27,660 LB | lbs. In   |
| 11:49 A | WEIGHT | 15,440 LB | lbs. Out  |
|         |        | 12,220 LB | lbs. Used |



Commodity \_\_\_\_\_ @ \_\_\_\_\_ per lb.

Remarks: \_\_\_\_\_ Driver: On  Off

\_\_\_\_\_ Load No. \_\_\_\_\_

\_\_\_\_\_ Weigher \_\_\_\_\_

Shipper \_\_\_\_\_

Seller \_\_\_\_\_

Buyer \_\_\_\_\_

Address \_\_\_\_\_

TR-200-2TM

SPCOM

Blast No.: 58

Blast type: Stone Quarry/Stone Mine - Overburden/Stripping

Customer:

Date/Time: 12/21/05 10:37 Pit/Permit:

Location: STRIPPING

**ENVIRONMENT**

Structure Name: McCABE RES.  
Structure Type: HOUSE  
Method Used: U.T.M.  
Blast U.T.M.: N1720723 E1874085

Weather: Clear  
Compass Point: NW  
Direction/Bearing: 307°  
Distance: 1,001 ft  
Structure U.T.M.: N1721322.49

Terrain: Flat  
Temperature: 49 °F  
Wind From: NW  
Wind Velocity: 0-5 m  
E1873283.597

**LAYOUT**

No. of Holes: 88 Hole Depth: 20.0 ft Burden: 15.0 ft Water Depth: 0.0 ft  
No. of Rows: 10 Subdrilling: 0.0 ft Spacing: 17.0 ft Stem Length: 8.0 ft  
Diameter: 6.000 in Face Height: 20.0 ft Back Fill Depth: 0.0 ft Stem Type: 67'S  
Mats Used: No Drilling Angle: 0° Material Blasted: Limestone

**WEIGHTS**

Electric: Yes Max. Allow. Chg. Wt. per 8 ms w/o Seismograph: 272 lb Scaled Distance Factor Used:  $D/W^{1/2} = 55$   
Firing Device: Single Series Max. No. of Holes Per 8 ms Interval: 2.00 Volume Produced: 16,622.2 yc  
Other Method: Max. Wt. of Expl. Per 8 ms Interval: 270.0 lb Weight Produced: 37,699.1 t  
Mfg and Model: REO- CD-450 Max. Wt. of Explosive Per Hole: 135.0 lb Powder Factor 1: 3.617 t/l  
Initiation Settings: 125 MS Actual Scaled Distance Factor: 60.92 Powder Factor 2: 0.627 lb.  
Series Resistance (ohms): #1-25.00 Rock Density: 2.268 t/y

**SEISMOGRAPH**

Date: Trigger Level: in/s dB Seismograph Type:  
Time: Calibration Date: Vertical: in/s Hz  
Distance From Blast: ft Calibration Signal: Longitudinal: in/s Hz  
Direction From Blast: Geophone Min Freq: Hz Acoustic: dB  
Readout: Mic. Min Freq: Hz Vector Sum: in/s  
Location: U.T.M.:  
Reader and Firm: Analyst and Firm: Installer and Firm:

**CREW**

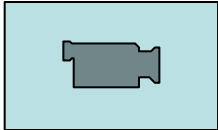
Blast Occurred Other Than Scheduled Time: No Misfire Occurred: No Protective Cover: ROCK TRUCK

| License Number | Certification | In Charge | Tied In | Chk. Tie-In |
|----------------|---------------|-----------|---------|-------------|
|                |               | Yes       | Yes     | Yes         |
|                |               | No        | Yes     | Yes         |
|                |               | No        | No      | Yes         |

**PRODUCTS AND SERVICES**

| Product Description  | Quantity    | Weight (lb) |
|--|-------------|-------------|
| Total Weight of Explosives (Include Primers): 10,423.00 lb |             |             |
| Bulk   | 10,360.0 lb | 10,360.00   |
| Boosters   | 84.0 ea     | 63.00       |
| WPP HEET BAG 5" X 44"                                      | 2.0 ea      | 0.00        |
| Blast Service-Blast Crew                                   | 1.0 ea      | 0.00        |
| Custom Blasting Services 1375                              | 1.0 ea      | 0.00        |

Comments/Explanations



# Weather

- Can be used to show lack of accuracy in shot reports.
- Can be used to prove charge of negligence.
- Often overlooked by blasters as important.
- Accurate observations may be important if overpressure is an issue.



# SEPTEMBER 24, 2009

Today



Cloudy

90° F

Feels Like: 90°

Tonight



Scattered T-Storms

75°

Low

Tomorrow



Partly Cloudy

85°

High

Past 24-hr:  
Precip: 0.13 in (est.)  
Snow: 0 in

Chance of Precip:  
40%

Chance of Precip:  
20%

Wind:  
From NNE at 3mph

Wind:  
WSW at 9mph

Wind:  
NW at 12mph

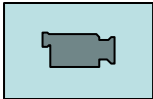
Humidity: 85%  
Dew Point: 64°  
Pressure: 30.00 in 1  
Visibility: 9.0 mi  
UV Index: 1 - Low

95%  
--

46%  
5 - Moderate



# September 2009

| Sunday  | Monday | Tuesday                      | Wednesday             | Thursday   | Friday | Saturday |
|---|--------|------------------------------|-----------------------|--|--------|----------|
|   |        | 1                            | 2                     | 3  | 4      | 5        |
| 6   | 7      | 8<br>8:35am<br>blast         | 9                     | 10<br>4:35pm<br>little blast                                       | 11     | 12       |
| 13  | 14     | 15                           | 16<br>8:55am<br>blast | 17   | 18     | 19       |
| 20  | 21     | 22                           | 23                    | 24<br>4:55pm<br><u>BIG!!</u> Blast<br>Called Quarry<br>to Complain | 25     | 26       |
| 27<br> | 28     | 29<br>4:25pm<br>little blast | 30                    |  |        |          |

# Dust Control

- Windblown dust, or fugitive dust, can impact the environment and cause health problems.
- When dust particulates from mining or construction sites become airborne, they can result in respiratory problems and cardiovascular conditions, accidents due to reduced visibility, and can result in increased wear and tear on equipment.

# Dust Control

- The Environmental Protection Agency (EPA), the National Institute for Occupational Safety and Health (NIOSH), and the Mine Safety and Health Administration (MSHA) require that most forms of dust be minimized in all mining operations.
- Regulations exist nationally and in many localities related to dust control.

# Dust Control

- Companies can be charged with administrative violation and hefty fines can be applied if such regulations are not followed
- Most importantly, dust problems may support civil liability claims for trespass and nuisance.











# Fugitive Dust

- Fugitive dust is small airborne particles called particulate matter. These smaller airborne particles have the potential to adversely affect human health and the environment.
- EPA defines fugitive dust as "particulate matter that is generated or emitted from open air operations (emissions that do not pass through a stack or a vent)."

# Fugitive Dust

- The most common forms of particulate matter (PM) are known as PM10 (particulate matter with a diameter of 10 microns or less) and PM2.5 (particulate matter with a diameter of 2.5 microns or less).

# Dust Control

- Companies can be charged with administrative violation and hefty fines can be applied if such regulations are not followed.
- Most importantly, dust problems may support civil liability claims for trespass and nuisance.
- You don't want to let your own records cause problems.

JEFFERSON COUNTY DEPARTMENT OF HEALTH  
AIR POLLUTION PROGRAM

AIR PERMIT

Permitter: Birmingham Aggregates, LLC-Wennah Rock Products


Location: 911 Wennah Road  
Birmingham, Alabama 35221

Nature of Business: Limestone Quarry Operation

| Air Permit Number | Source Description   |
|-------------------|--|
| 4-07-0498-001-01  | Limestone Crushing and Screening Operation Consisting of One Jaw Crusher, Two Cone Crushers, One Impact Crusher, Four Dry Screens, One Wet Screen, Conveyor Belts, and Belt Transfer Points. |

*This Permit is issued pursuant to and is conditioned upon the compliance with the provisions of the Jefferson County Board of Health Air Pollution Control Rules and Regulations, Section 18 of the Alabama Air Pollution Control Act of 1971, Act No 769 (Regular Session, 1971), Section 22-28-16 of the Alabama Air Pollution Control Act as amended, Orders of the Jefferson County Board of Health, Orders of the Director of the Alabama Department of Environmental Management, and any applicable local, state or federal Court Order. This Permit is subject to the accuracy of all information submitted relating to the permit application and to the conditions appended hereto, all of which are considered a part of this Permit. It is valid from the date of issuance and shall be passed or kept under fire at the source location described above and shall be made readily available for inspection at any reasonable time to any and all persons who may request to see it. This Permit is not transferable.*

Date of Issuance: November 19, 2002

  
James L. Carroll, Director  
Environmental Health Services

Approved: Michael E. Fleenor, M.D.  
Health Officer

ENV-AP-107-2/98 Revised



|     |   |                  |
|-----|---|------------------|
| 8.  | <p><b><u>Permit</u></b></p> <p>The permittee shall receive a Permit prior to construction of any new source or prior to any modification, replacement, or alteration of an existing source that might cause or allow an increase or decrease of, or an issuance of, air contaminants.</p>   | 2.1.1(a)         |
| 9.  | <p><b><u>Display of Air Permit</u></b></p> <p>The permittee shall keep the Air Permit under file or on display at all times at the site and shall make such a permit readily available for inspection by any or all persons who may request to see it.</p>  | 2.1.1(d)         |
| 10. | <p><b><u>Permit Expiration</u></b></p> <p>This Permit shall automatically expire and its permit application shall be cancelled if the construction of the new source permitted herein or the modification, replacement, or alteration to an existing source or control device permitted herein is not begun within 24 months of the date of issuance of this Permit.</p>  | 2.2.1(b)         |
| 11. | <p><b><u>Notification of Completion</u></b></p> <p>Upon the completion of construction of a new source, or, modification or replacement or alteration of an existing source and/or control device, for which this Permit was issued, the permittee shall submit written notification of the completion to this Department within 10 days of the said completion.</p>  | 2.1.3            |
| 12. | <p><b><u>Maintaining Records</u></b></p> <p>The permittee shall maintain records of the occurrence and duration of any start-up, shutdown, or malfunction in the operation of the process equipment permitted herein and any malfunction of the air pollution control equipment. These records shall be kept in a permanent form suitable for inspection in a format approved by this Department and shall be retained at least 2 years following the date of each occurrence.</p>  | 2.3.1(d)         |
| 13. | <p><b><u>Shutdown of Controls</u></b></p> <ol style="list-style-type: none"> <li>1. In the case of shutdown of air pollution control equipment for scheduled maintenance for a period greater than 24 hours, the intent to shutdown shall be reported to this Department at least 24 hours prior to the planned shutdown in accordance with the requirements of Section 1.12.1 of the Rules and Regulations.</li> <li>2. In the event there is a breakdown of air pollution control or process equipment in such a manner as to cause increased emission of air contaminants for a period greater than 30 minutes, the person responsible for such equipment shall notify the Department within 1 hour and provide a statement giving all pertinent facts, including the duration of the breakdown. The Director of Environmental Health Services shall be notified when the breakdown has been corrected.</li> </ol> | 1.12.1<br>1.12.2 |

|            |   |                  |
|------------|---|------------------|
|            | <p>5. By any combination of the above methods which results in the prevention of dust becoming airborne from the road surface. Other dust control methods not listed above may be used if approved by the Department.</p> <p>C. Paved plant roads and grounds shall be maintained in the following manner so that dust will not become airborne:</p> <ol style="list-style-type: none"> <li>1. Mechanical cleaning (vacuuming); or</li> <li>2. Water flushing; or</li> <li>3. Earth or other dust-forming material that is deposited on the paved roads shall be removed at the earliest opportunity subject to safety; or</li> <li>4. Paving or using a chemical dust suppressant on unpaved access points; or</li> <li>5. Washing and dewatering tires and the underbody of trucks which enter a paved road from an unpaved road; or</li> <li>6. By any combination of the above methods which results in the prevention of dust becoming airborne from the road surface. Other dust control methods not listed above may be used if approved by the Department.</li> </ol>   |                  |
| <p>21.</p> | <p><b><u>Maintenance of Control Equipment</u></b></p> <ol style="list-style-type: none"> <li>1. The permittee shall equip each particulate matter control device with a pressure differential measuring device to measure pressure drop across the filter media in the control device. This device shall be installed in a location which is easily accessible for inspection by personnel of this Department.</li> <li>2. All air pollution control devices and capture systems for which this permit is issued shall be maintained and operated at all times in accordance with the manufacturer's specifications so as to minimize the emissions of air contaminants. Procedures for ensuring that the above equipment is properly operated and maintained so as to minimize the emission of air contaminants shall be submitted to this Department for approval.</li> <li>3. The permittee shall conduct routine inspections on all control equipment. All inspection results and repair work performed on the pollution control device shall be recorded. These records shall be kept in a permanent form suitable for inspection in a format approved by this Department and shall be retained for at least 2 years.</li> </ol> | <p>17.2.8(a)</p> |
| <p>22.</p> | <p>The permittee shall submit by February 10th of each calendar year to this Department an annual summary report for the previous calendar year in a format approved by this Department of the following production information of the source permitted herein:</p> <ol style="list-style-type: none"> <li>A. Quantity limestone crushed by each crusher</li> <li>B. Quantity of limestone screened by each screen</li> </ol>   | <p>2.3 (d)</p>   |

Dust Suppression Inspection

Lakeshore Quarry

04

Weather Conditions:

morning Clear LAFARGE

Employee Name:

Supervisor's initials

Jay Conde

Date: 9/25/06

Shift: 1st

If the condition is met, check the corresponding box. If sprays are defective, mark X in the box and describe corrective actions below.

| Source Codes | Water Spray Locations* | Is desired spray pattern produced? | Is spray directed toward material? | Is nozzle unclogged? | Is there sufficient water pressure? | Burlap enclosures adequate? | Are spare sprays in stock? |
|--------------|------------------------|------------------------------------|------------------------------------|----------------------|-------------------------------------|-----------------------------|----------------------------|
|              | Jaw crusher            | YES                                | YES                                | YES                  | YES                                 | N/A                         |                            |
|              | Jaw crusher discharge  | YES                                | YES                                | YES                  | YES                                 | N/A                         | N/A                        |
|              | Crusher feed           | YES                                | YES                                | YES                  | YES                                 | N/A                         |                            |
|              | Crusher discharge      | N/A                                | YES                                | YES                  | YES                                 | N/A                         |                            |
|              | Dry screen discharge   |                                    |                                    |                      |                                     | N/A                         |                            |
|              |                        |                                    |                                    |                      |                                     |                             |                            |
|              |                        |                                    |                                    |                      |                                     |                             |                            |
|              |                        |                                    |                                    |                      |                                     |                             |                            |
|              |                        |                                    |                                    |                      |                                     |                             |                            |
|              |                        |                                    |                                    |                      |                                     |                             |                            |
|              |                        |                                    |                                    |                      |                                     |                             |                            |
|              |                        |                                    |                                    |                      |                                     |                             |                            |
|              |                        |                                    |                                    |                      |                                     |                             |                            |
|              |                        |                                    |                                    |                      |                                     |                             |                            |
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Corrective Actions (Notify supervisor if any problems are found that cannot be corrected immediately or if spare parts are needed.):

noy bars in Huzmag discharge part working.

JV

Call EMS Team

Revision: 09/29/04

Contact: Environmental Services

Distribution: Plant

is required by Air Quality Permit #

4-07-0498-001-02

permit or amendment dated:

Oct. 10, 2003

ID: 0904DSI

\*If this permit is amended verify water spray locations with revised amendment.

note: Environmental Services must be notified if sprays are inoperable for 4 hours or more (GA) or 1 hour or more (AL). You must complete a Environmental Event Notification Report and distribute.



Dust Suppression Inspection

Lakeshore Quarry

Weather Conditions:

Clear



Lot:

04

Employee Name:

Supervisor's initials:

P.H. Lip Spain

Date: 9-25-06

Shift: 2nd

If the condition is met, check the corresponding box. If sprays are defective, mark X in the box and describe corrective actions below.

| Source Codes | Water Spray Locations* | Is desired spray pattern produced? | Is spray directed toward material? | Is nozzle unclogged? | Is there sufficient water pressure? | Burlap enclosures adequate? | Are spare sprays in stock? |
|--------------|------------------------|------------------------------------|------------------------------------|----------------------|-------------------------------------|-----------------------------|----------------------------|
|              | Jaw crusher            | Yes                                | Yes                                | Yes                  | Yes                                 | NA                          | No                         |
|              | Jaw crusher discharge  | Yes                                | Yes                                | Yes                  | Yes                                 |                             | No                         |
|              | Crusher feed           | Yes                                | Yes                                | Yes                  | Yes                                 |                             |                            |
|              | Crusher discharge      | No                                 |                                    |                      |                                     |                             |                            |
|              | Dry screen discharge   | No                                 |                                    |                      |                                     |                             |                            |

Corrective Actions (Notify supervisor if any problems are found that cannot be corrected immediately or if spare parts are needed.):

No Spray Bar for Haulway

Approval: EMS Team

Revision: 09/29/04

Contact: Environmental Services

Distribution: Plant

A permit is required by Air Quality Permit #

4-07-0498-001-02

permit or amendment dated:

Oct. 10, 2003

ID: 0904DSI

\*If this permit is amended verify water spray locations with revised amendment.

Environmental Services must be notified if sprays are inoperable for 4 hours or more (GA) or 1 hour or more (AL). You must complete an Environmental Event Notification Report and distribute.





# Dust Suppression Inspection



Lakeshore Quarry

Weather Conditions: \_\_\_\_\_

04

Employee Name: \_\_\_\_\_

Supervisor's initials \_\_\_\_\_

*Joey Linder*

Date: *10/4/03*

Shift: *1S*

If the condition is met, check the corresponding box. If sprays are defective, mark X in the box and describe corrective actions below.

| Source Codes | Water Spray Locations* | Is desired spray pattern produced? | Is spray directed toward material? | Is nozzle unclogged? | Is there sufficient water pressure? | Barlap enclosures adequate? | Are spare sprays in stock? |
|--------------|------------------------|------------------------------------|------------------------------------|----------------------|-------------------------------------|-----------------------------|----------------------------|
|              | Jaw crusher            | ✓                                  | ✓                                  | ✓                    | ✓                                   |                             |                            |
|              | Jaw crusher discharge  | ✓                                  | ✓                                  | ✓                    | ✓                                   |                             |                            |
|              | Crusher feed           | ✓                                  | ✓                                  | ✓                    | ✓                                   |                             |                            |
|              | Crusher discharge      | X                                  | X                                  | X                    | X                                   |                             |                            |
|              | Dry screen discharge   |                                    |                                    |                      |                                     |                             |                            |
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Corrective Actions (Notify supervisor if any problems are found that cannot be corrected immediately or if spare parts are needed.):

*discharge sprayers on Hazecony doesn't work.*



Environmental Services must be notified if sprays are inoperable for 4 hours or more (GA) or 1 hour or more (AL). You must complete an Environmental Event Notification Report and distribute.

**Dust Suppression Inspection**



Lakeshore Quarry

Weather Conditions: \_\_\_\_\_

Shift: 04

Employee Name: Steve Collier  
 Supervisor's initials: \_\_\_\_\_

Date: 10/5/06 Shift: 193

**If the condition is met, check the corresponding box. If sprays are defective, mark X in the box and describe corrective actions below.**

| Source Codes | Water Spray Locations* | Is desired spray pattern produced? | Is spray directed toward material? | Is nozzle unclogged? | Is there sufficient water pressure? | Bar/rap enclosures adequate? | Are spare sprays in stock? |
|--------------|------------------------|------------------------------------|------------------------------------|----------------------|-------------------------------------|------------------------------|----------------------------|
|              | Jaw crusher            | ✓                                  | ✓                                  | ✓                    | ✓                                   | ✓                            |                            |
|              | Jaw crusher discharge  | ✓                                  | ✓                                  | ✓                    | ✓                                   | ✓                            |                            |
|              | Crusher feed           | ✓                                  | ✓                                  | ✓                    | ✓                                   | ✓                            |                            |
|              | Crusher discharge      |                                    |                                    |                      |                                     |                              |                            |
|              | Dry screen discharge   |                                    |                                    |                      |                                     |                              |                            |
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Corrective Actions (Notify supervisor if any problems are found that cannot be corrected immediately or if spare parts are needed.):

Having sprays not spraying

Approval: EMS Team      Revision: 09/29/04      Contact: Environmental Services      Distribution: Plant  
 Retain Record for 5-years.  
 This form is required by Air Quality Permit # 4-07-0498-001-02      permit or amendment dated: Oct. 10, 2003      ID: 0904DSI  
 \*If this permit is amended verify water spray locations with revised amendment.

PI- note: Environmental Services must be notified if sprays are inoperable for 4 hours or more (GA) or 1 hour or more (AL). You must complete a Plant Environmental Event Notification Report and distribute.



Dust Suppression Inspection



Lakeshore Quarry

Weather Conditions: \_\_\_\_\_

Plant: 04

Employee Name: Jeff Curlee

Date: 10/06/06

Shift: 1st

Supervisor's initials \_\_\_\_\_

If the condition is met, check the corresponding box. If sprays are defective, mark X in the box and describe corrective actions below.

| Source Codes | Water Spray Locations* | Is desired spray pattern produced? | Is spray directed toward material? | Is nozzle unclogged? | Is there sufficient water pressure? | Burlap enclosures adequate? | Are spare sprays in stock? |
|--------------|------------------------|------------------------------------|------------------------------------|----------------------|-------------------------------------|-----------------------------|----------------------------|
|              | Jaw crusher            | ✓                                  | ✓                                  | ✓                    | ✓                                   | ✓                           |                            |
|              | Jaw crusher discharge  | ✓                                  | ✓                                  | ✓                    | ✓                                   | ✓                           |                            |
|              | Crusher feed           | ✓                                  | ✓                                  | ✓                    | ✓                                   | ✓                           |                            |
|              | Crusher discharge      | X                                  |                                    |                      |                                     |                             |                            |
|              | Dry screen discharge   |                                    |                                    |                      |                                     |                             |                            |
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Corrective Actions (Notify supervisor if any problems are found that cannot be corrected immediately or if spare parts are needed.):  
sprayers on. Having doesn't work  
The dust is killing Jack.



Environmental Services must be notified if sprays are inoperable for 4 hours or more (GA) or 1 hour or more (AL). You must complete an Environmental Event Notification Report and distribute.

Dust Suppression Inspection



Site: Lafayette

Weather Conditions: \_\_\_\_\_

Plant: \_\_\_\_\_

Employee Name: Sooy Colac

Date: 1-26-07 Shift: 2nd

Supervisor's initials \_\_\_\_\_

If the condition is met, check the corresponding box. If sprays are defective, mark X in the box and describe corrective actions below.

| Source Codes | Water Spray Locations* | Is desired spray pattern produced? | Is spray directed toward material? | Is nozzle unclogged? | Is there sufficient water pressure? | Are filters clean? (if present) | Are spare sprays in stock? |
|--------------|------------------------|------------------------------------|------------------------------------|----------------------|-------------------------------------|---------------------------------|----------------------------|
|              | Jaw Crusher            | ✓                                  | ✓                                  | ✓                    | ✓                                   |                                 |                            |
|              | Belt C-1 to C-2        | ✓                                  | ✓                                  | ✓                    | ✓                                   |                                 |                            |
|              | Crusher Feed           | ✓                                  | ✓                                  | ✓                    | ✓                                   |                                 |                            |
|              | Crusher Discharge      |                                    |                                    |                      |                                     |                                 |                            |
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Corrective Actions (Notify supervisor if any problems are found that cannot be corrected immediately or if spare parts are needed.):

Lots of Dust from Making crkcr.



Please note: Environmental Services must be notified if sprays are inoperable for 4 hours or more (GA) or 1 hour or more (AL). You must complete a Significant Environmental Event Notification Report and distribute.

Dust Suppression Inspection



Site: Lakeshore Quarry

Weather Conditions: clear

Plant: 04

Employee Name: Philip Spier  
Supervisor's initials: \_\_\_\_\_

Date: 1-22-07 Shift: 1st

If the condition is met, check the corresponding box. If sprays are defective, mark X in the box and describe corrective actions below.

| Source Codes | Water Spray Locations* | Is desired spray pattern produced?  | Is spray directed toward material?  | Is nozzle unclogged?                | Is there sufficient water pressure? | Burlap enclosures adequate?         | Are spare sprays in stock?          |
|--------------|------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
|              | Jaw crusher            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |                                     | <input checked="" type="checkbox"/> |
|              | Jaw crusher discharge  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |                                     | <input checked="" type="checkbox"/> |
|              | Crusher feed           | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |                                     | <input checked="" type="checkbox"/> |
|              | Crusher discharge      | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
|              | Dry screen discharge   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |                                     | <input type="checkbox"/>            |
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Corrective Actions (Notify supervisor if any problems are found that cannot be corrected immediately or if spare parts are needed.):

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Approval: EMS Team      Revision: 09/29/04      Contact: Environmental Services      Distribution: Plant

This form is required by Air Quality Permit # 4-07-0498-001-02      Retain Record for 5 years.      permit or amendment dated: Oct. 10, 2003      ID: 0904DSI

\*If this permit is amended verify water spray locations with revised amendment.

Please note: Environmental Services must be notified if sprays are inoperable for 4 hours or more (GA) or 1 hour or more (AL). You must complete a Significant Environmental Event Notification Report and distribute.



# Lets Sum Up.....

- Blasting claims, more than ever before
- Ultra-Hazardous activity (Guilty)
- Personal liability to blaster, supervisor, etc.
- Blasting records – cannot win case without them
- Improper blasting records – cannot win case with them
- Be professional
- Be safe
- Take your time !!!!

[www.quarryacademy.com](http://www.quarryacademy.com)



Improving Processes. Instilling Expertise.

# Blasting Litigation: How Do We Defend These Claims?

- Everyone has cracks and sometimes there is no evidence proving the damage was already there.
- In cases where there is no evidence the damage was there before our blasting, compliance and accurate records are the only way we can prove we did not cause the damage.



# What You Can Do

- Slow down
- Proofread
- Don't procrastinate; complete your reports on site.
- Make sure records are kept safe and secure.
- Voice any concerns before a problem develops: avoid the Stockholm Syndrome.
- A few extra minutes at the end of your long day can save the company thousands of dollars and a lot of legal headaches.

# Challenges in Court

- Technology
- Access to information
  - Internet
  - E-mail
  - Organized resistance
- Highly Trained Lawyers on Both Sides

# Common Misconceptions I'm Really Good at My Job

- I know my job. I'm good at it. I'm honest and I have clear conscience. I am not going to get caught up in all that corporate stuff about record keeping and lawsuits. I am going to mind my own business and leave all that to the company.
- ANSWER: Being good at your job is not good enough.
  - Sounds good, but it won't work:
    - a) Does not matter how good you are at your job.
    - b) It is not a corporate issue, it is a licensed blaster issue – they can only get to the company through you.
      - Individual Liability
      - Reputation
      - Employment
    - c) Minding your own business may sound good, but the legal system makes your business – the public's business....
      - Outside Issues
      - Health Issues
      - Employment History

# How are They Going to Prove We caused Damage?

- ANSWER: They don't have to....The law does not require the plaintiffs to prove cause!

You would have more rights if you committed a crime than you do when you are accused of causing damage by blasting vibration. **YOU ARE NOT INNOCENT UNTIL PROVEN GUILTY!**

Strict Liability

Dangerous Activity

Ultra Hazardous

If an activity involves the potential for serious harm to people or property, no matter how carefully it is undertaken, then those responsible for the act will be held strictly liable for any resulting damages.

All the plaintiff has to do is to say they heard/felt a blast and then noticed damage.

# How are They Going to Prove We caused Damage?

- A short cut here or there wont hurt me.
- If you believe this you are asking to fall on your face.