

## Minimizing Blasting Impacts

There exists a common misconception in the general public that blasting is a throwback to a bygone era. When the topic of blasting arises, the image many people formulate is still the old time miner with a long beard covering behind a boulder as the blast detonates, throwing rock and debris for miles around. This perception is truly inaccurate, and the field of explosives blasting has benefited from many of the technological advancements of the modern era.

The two principal derivatives of blasting which most often initiate an adverse public response are ground vibration and overpressure.

Recent years have seen an almost universal adoption of standards developed by the United States Bureau of Mines (USBM) for control of blast vibration and overpressure. These standards have



been utilized as the basis for the development of blast and vibration control regulations by the overwhelming majority of Government and private organizations across North America and globally.

While ground vibrations represents the greatest damage risk to surrounding structures, it is overpressure which typically causes the greatest annoyance. Overpressure generated from blasting operations is the result of a series of events, most notably gas escaping from the blast rock area, ground vibration and direct displacement of the rock. While proper blast design will greatly contribute to controlling overpressure, effects of the airblast are also strongly influenced by numerous uncontrollable factors including the geology of the rock blasted, prevailing winds, cloud cover and the presence of temperature inversions.

In today's blasting industry, blasts are designed in order to ensure satisfactory results with regards to rock fragmentation, flyrock, ground vibrations and overpressure. Holes are drilled and loaded on predetermined patterns to ensure the most effective use of the explosive energy. Blasts are typically detonated in a sequential manner such that only a limited number of holes and thereby a limited quantity of explosives are detonated at any instant in time. This approach permits the creation of relief as the rock moves out from the face thereby reducing vibration intensities. In an effort to mitigate overpressure levels, the top portion of

blast boreholes are often filled or “stemmed” with crushed stone again to confine gases within the blast rock. With the proper design, blasting becomes feasible in almost any situation. With advancements in the field of blasting and technology, the opportunities for quarries will continue to expand while inconveniences imposed on neighbouring properties diminish.

## Tomlinson & the Community

### Winchester Hospital Donation

R.W. Tomlinson Limited has made a \$25,000 commitment over the next five years to the Winchester District Hospital in support of their \$15 million “*Renewing the Vision Campaign*”. In order to continue to deliver quality health care, the Hospital is renovating existing facilities and undertaking new construction of an additional 50,000 square feet. If you would like to assist in the campaign, please contact Cindy Keon or the Winchester hospital directly at 1-877-774-5105.

### SNC Opportunities

The South Nation Conservation Authority (SNC) has proposed a number of projects that Tomlinson staff and their families may be interested in participating. These projects include:

1. Christmas tree cutting day for Tomlinson staff on SNC forest land
2. Building a fish habitat in one of the rivers in the watershed
3. A park clean day to assist SNC maintain/clean up of their parks
4. Tree planting day
5. Presentation on the history of settlement in the SNC watershed
6. Job shadowing
7. Canoe/kayak tour down the Nation River
8. Hike with SNC staff

9. Fishing with SNC fisheries staff
10. Bus tour of watershed

Please contact Dale MacGregor if you are interested in pursuing any of these activities.

## President Ron

Ron Tomlinson has been elected president of the National Capital Heavy Construction Association. In his April 1, acceptance speech Ron outlined his priorities for the upcoming year, which include informing municipal politicians of the relationship between our members and the communities we support, and keeping members aware of changes in provincial and federal legislation that have an impact on the industry.

## Safety Cheque Presentation

The Ottawa Construction Association (OCA) and the Workplace Safety & Insurance Board (WSIB) are part of a province wide safety group that began with a trial program in 2000 and was made an ongoing WSIB program in 2002.



Dale MacGregor is shown receiving the third largest cheque on behalf of the company as their portion of the rebate that the Safety Group received.

Safety Groups are designed to recognize businesses that make safety prevention a daily habit by building safety prevention elements into their management systems. Firms in a group can receive rebates on their WSIB premiums if they participate fully in the program and can show they have made safety prevention elements an integral part of their businesses. R.W. Tomlinson has completed 19 of the prescribed elements.

## Safety Contest

RWT purchased at a charity auction, access to a Condo in Florida, which is available for two-one week periods next winter. These two separate one-week periods will be awarded to the two Foremen who achieve the best safety record during 2004. The safety record evaluation will be based on the following items:

1. Number of Medical Aids
2. Number of Lost Time Injuries
3. Number of Vehicle Accidents
4. Number of Safety Meetings completed
5. Number of Workplace Inspections completed.

The Foremen within the Company will be divided into two groups as follows:

Group 1 - Quarries, Trucking and Environmental Services

Group 2 - Construction

One Foreman from each Group will be awarded this safety prize with the announcement being made at the Christmas party in December 2004.

## New Projects

**Monarch Construction:** R.W. Tomlinson has been awarded a three-year, \$1.8 million project to construct roads in the Stonebridge subdivision, along with the parking lot for the golf course. Tomlinson's are awarded a number of these large subdivision projects each year by various developers.

**Enbridge Gas Cuts:** For the second year in a row, R.W. Tomlinson has been awarded the contract for hard reinstatement for all gas service cuts in Eastern Ontario and the adjoining Quebec area.

**417 Project:** Tomlinson's were the successful bidder on the 140,000 tonnes of asphalt Highway 417 super-pave project to be completed this year from Antrim to Arnprior. (The next issue of *Tomlinson Times* will talk about super-pave)

**Highway 15:** RWT was awarded a new \$5.8 million Highway 15 project from Franktown Road to Carleton Place This Super Pave project includes grading and traffic control.

## New Crusher Plant

We have just installed a new 42" x 48" Hewitt-Robins Jaw Crusher along with a 24 foot Metso Feeder in the Rideau Road quarry. The new plant also includes a control tower, and hydraulic hoe ram. This compressor style crusher is a twin of the crusher at Ontario Trap Rock. The design and equipment changes will increase production and significantly reduce downtimes from oversize rock.



## Highway Division wins Paver of the Year (Eastern Ontario)

The Ministry of Transportation of Ontario has awarded the 2003 Paver of the Year Award for Eastern Ontario to R.W. Tomlinson Limited. Tomlinson was recognized for a 22.5 kilometre stretch of Highway 41, south from Highway 132. MTO's Gary Todd noted that it was the quality and craftsmanship on the job that secured Tomlinson's the award. The criteria used to select Paver of the Year includes:

1. Overall combined ERS specifications component of hot mix
2. Smoothness
3. Segregation
4. Other surface defects
5. Overall workmanship
6. Innovation

## Employee Profiles



Andy Michaud has worked with R.W. Tomlinson for the past 20 years. Originally with Beaver, Andy is now a Construction Foreman with the bridge building division. He is currently working on the By-town bridges project. Andy notes, "Building a team of 14 guys to work together on this first major

bridge contract is a little like building a hockey team." He adds however, "We have a good coach. Marlen Dinovitzer really knows his stuff."

According to Andy, the City of Ottawa thinks highly of the Tomlinson Group because we are very professional about how we do things. What he likes best about working at Tomlinson's is the good atmosphere, and the fact that there is always lots of work.

### Our Job

Heavy construction, asphalt and aggregate supply, custom mining, environmental services.

### Our Commitment

Meeting the highest quality standard in products and services. Providing the safest work environment for our employees, our customers and our community. Conducting our business ethically and professionally. Inspiring pride in our employees, our work and our company.

Tel: (613) 822-1867

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