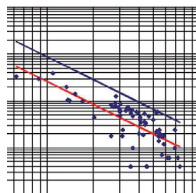


Blast Log® analysis and reporting



Blast Log is a comprehensive blasting analysis and reporting service developed to meet the needs of both operators and regulators. It supports and improves compliance with blasting related planning conditions, and contributes to improved blast performance and blast design.

Key features include:

- Regular updating of predictions using ongoing site data
- Providing MICs to the operator that ensure compliance with vibration level planning restrictions by design rather than by accident.

The system's advanced analysis also allows blasting on individual benches or areas to be assessed and the financial and environmental risks and benefits of changes to be evaluated rapidly and reliably, optimising costs and maximising efficiency.

Blast and vibration monitoring



BlastLog Ltd provides a comprehensive service in the monitoring of vibration, air-overpressure and frequency levels for a range of applications.

The majority of our monitoring work is for the quarrying and mining industries, where we provide both short and long term monitoring support to suit a client's needs and can act on the client's behalf in reporting to and discussing monitoring schemes with regulators.

Other regular monitoring projects range from one-off explosive demolitions, to longer term mechanical demolitions and the monitoring of piling projects, tunnelling projects and other civil engineering works.

Timing optimisation for electronic detonators



Blast Log Ltd has developed and uses software to analyse and optimise the initiation timings of electronic detonators.

This enables greater control over the blast, the fragmentation and the resultant blast pile.

The optimisation can minimise vibration and has, through greatly increased control, improved confidence and enabled the limit of blasting to be moved significantly closer to a sensitive structure.

Instrumentation



We design, build, install and maintain, single monitoring units and permanent monitoring systems.

Services range from hiring individual vibrographs to designing and building bespoke and remotely operated permanent vibration monitoring systems to suit specific requirements.

Face profiling and blast design using the 3G Blast Metrix system



This innovative system uses two calibrated digital photographs to produce a complete 3D rendered image of a quarry face.

The image is used to design shot hole locations and accurately calculate burdens. We provide a complete face profiling and blast design service using Blast Metrix which is faster than traditional face profiling methods.

This system also produces a permanent photographic record of blast locations for geological and geotechnical use and/or further investigations into the pre-blast face conditions.

Consultancy



We provide consulting solutions tailored to the individual needs of our clients and implementation of design and remedial works if required.

Consulting areas include, but are not limited to, the following:

- Assistance with specific blast design issues
- Independent review of demolition and blast designs and charging plans
- On-site audits of blasting and monitoring practices
- Building condition surveys prior to the commencement of blasting
- Reduction of the perceived environmental impacts of blasting
- Liaison with neighbours and regulators to assist in the resolution of blasting issues.
- Explosive and economic optimisation of the blasting process.

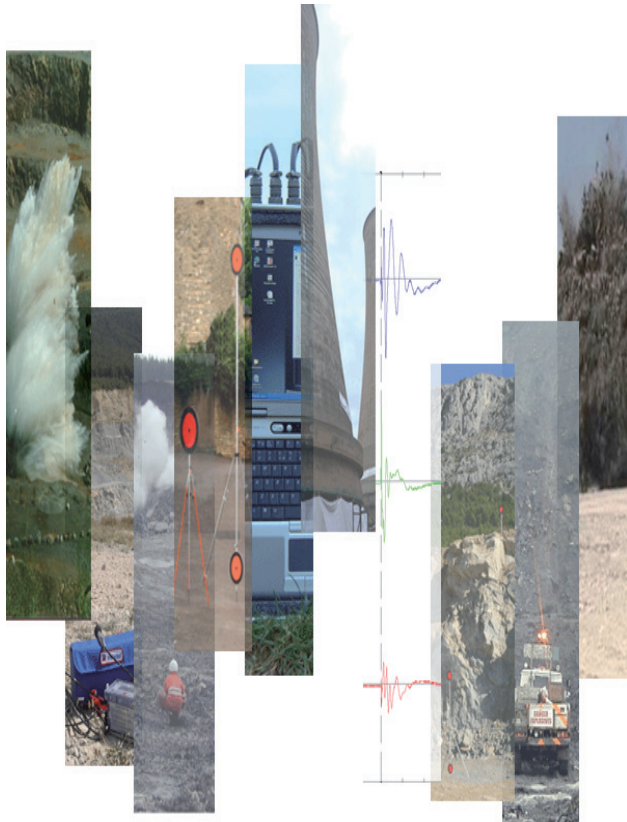
Training



Blast Log Ltd provides customised training to suit the specific needs of a wide range of clients, which we typically conduct at the clients' sites.

Training areas include;

- Set up and use of vibrograph units
- Analysis and the proper recording and reporting of vibration results
- Supplementary training to improve on-site blasting procedures
- Introduction to the Blast Metrix face profiling system and training on site specific blast design issues.



Key Members of the Blast Log Team

Bill Birch

Director of Blast Log Ltd

For 21 years Bill worked for British Coal Opencast specialising in environmental issues (particularly blasting) and has for the last 13 years lectured in quarrying at the University of Leeds, undertaking extensive and innovative research projects in blasting and related issues. Bill is Director of the Blasting Research Group at the Energy and Resources Research Institute, University of Leeds.

Contact Bill on BillB@blastlog.co.uk

Dr. Alan Cobb

Director of Blast Log Ltd

Alan has over 30 years consulting experience in blasting related issues including blast design; the monitoring, modelling and prediction of environmental effects; and geotechnical implications of quarry blasting, rock mass characterisation and blast fragmentation. Alan also acts as an expert witness regarding blasting issues.

Contact Alan on AlanC@blastlog.co.uk

Ruth Allington

Director of Blast Log Ltd

Ruth has over 25 years consulting experience within the quarrying industry. She has a range of experience in the design of mines and quarries, including co-ordination of technical inputs to the design process and optimisation of operations. Ruth is also active as an expert witness and has extensive experience in the interpretation of operational, geological and hydrogeological issues relating to surface mines and quarries.

Contact Ruth on RuthA@blastlog.co.uk

Emily Vallance

Blasting Engineer

Emily has a range of experience in vibration monitoring, blast design and environmental impact assessments and holds QPTC shotfiring and blast design certificates.

Contact Emily on EmilyV@blastlog.co.uk

Shazad Hosein

Blasting Engineer

Shazad has developed the detonator optimisation software program. He also has experience in blasting and explosive techniques, monitoring, analysis and prediction.

Contact Shazad on ShazadH@blastlog.co.uk

Retained Consultant.

Dr. Mark Pegden: Blasting Engineer

Head Office: Blast Log Ltd, Upton House, Market Street, Charlbury, Oxfordshire OX7 3PJ. UK

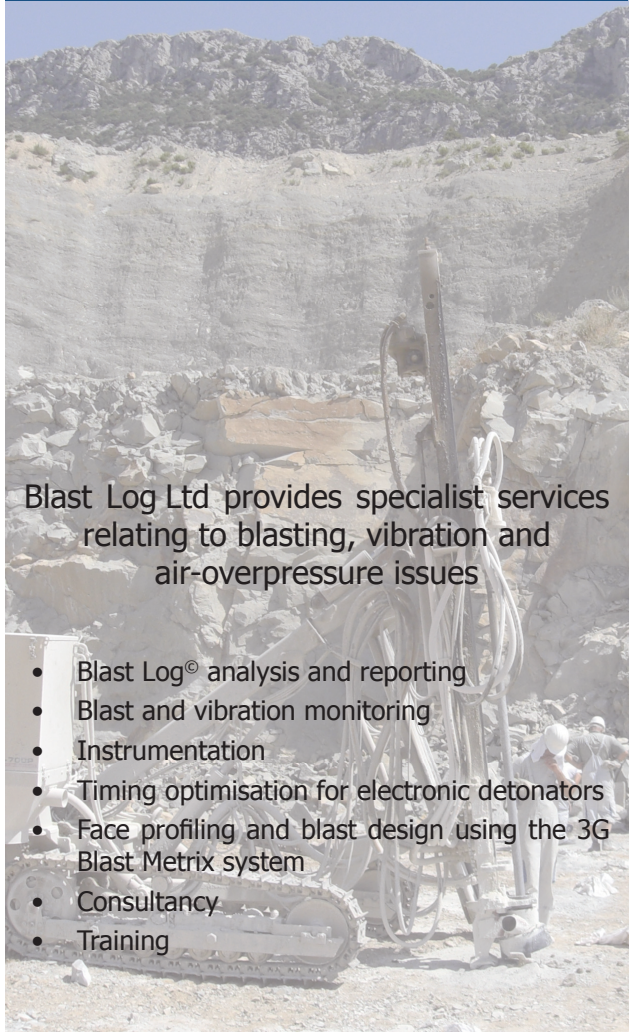
Tel: +44(0)1608 810374 Fax: +44(0)1608 810093

Leeds Office: Blast Log Ltd, Alberma House, 30 Grovehall Parade, Beeston, Leeds LS11 7AE. UK

Tel: +44(0)1133 859870 Fax: +44(0)1133 859871

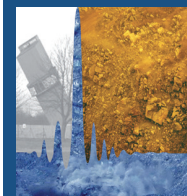
BLAST LOG Ltd

design, performance & compliance



Blast Log Ltd provides specialist services relating to blasting, vibration and air-overpressure issues

- Blast Log® analysis and reporting
- Blast and vibration monitoring
- Instrumentation
- Timing optimisation for electronic detonators
- Face profiling and blast design using the 3G Blast Metrix system
- Consultancy
- Training



info@blastlog.co.uk
www.blastlog.co.uk