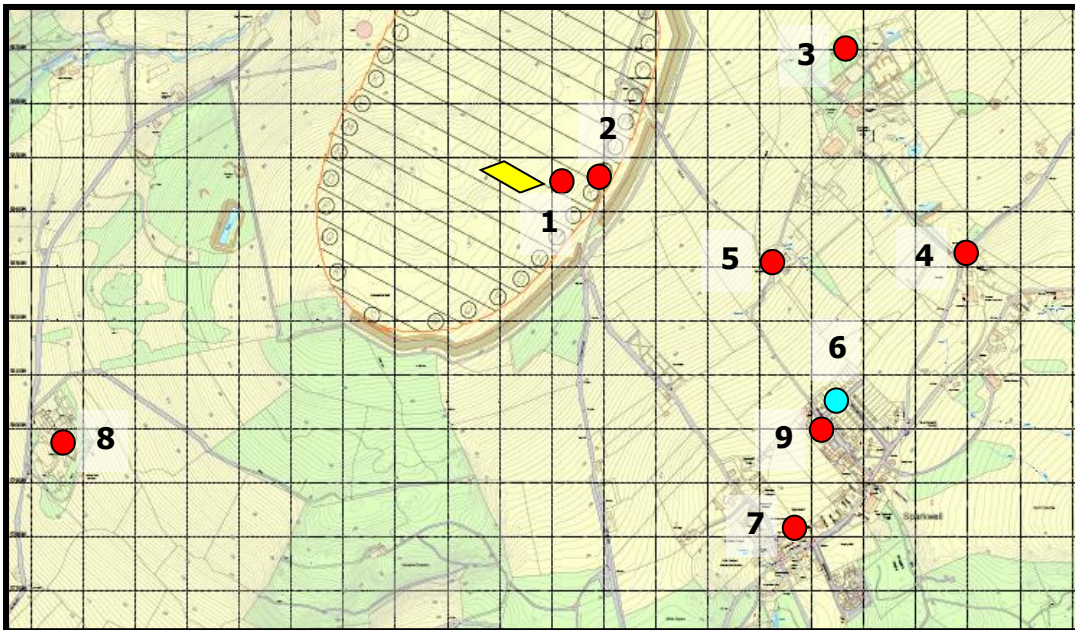


SUMMARY REPORT FOR DRAKELANDS BLAST No 19, 8TH APRIL 2016
BLAST NUMBER: BLAST 19-16 L195E - A



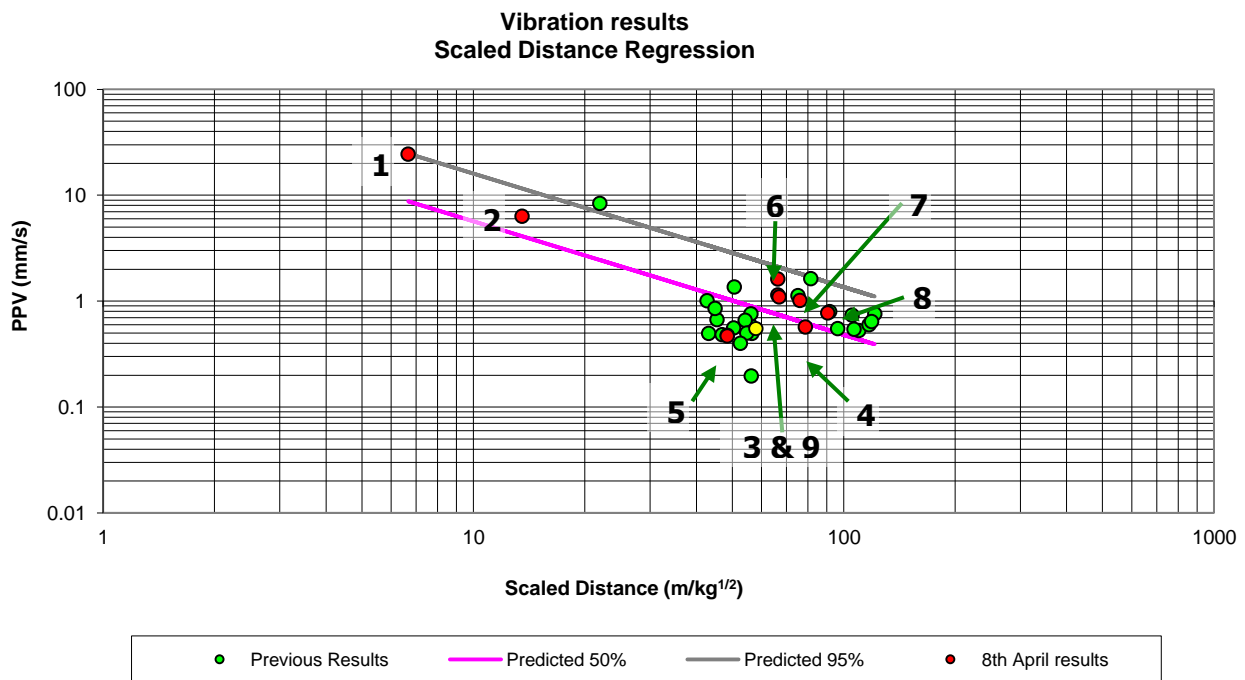
Legend for map Blast Monitoring location (outdoor only) Monitoring location (inside & outdoor)

Location name and number	Distance from Blast (m)	Result (maximum single plane) (mm/s)
1. On-site	71	24.5
2. On-site	146	6.35
3. Zoo (near lion cages)	714	1.143
4. Zoo (entrance)	848	0.572
5. Birchland Farm	522	0.476
6. 20 Birchland Rd	715	1.619
7. Old school house	819	1.016

Location name and number	Result (maximum single plane) (mm/s)
6. 20 Birchland Rd Outside (Back-garden)	1.619
6. 20 Birchland Rd Inside (1 st Floor)	5.207

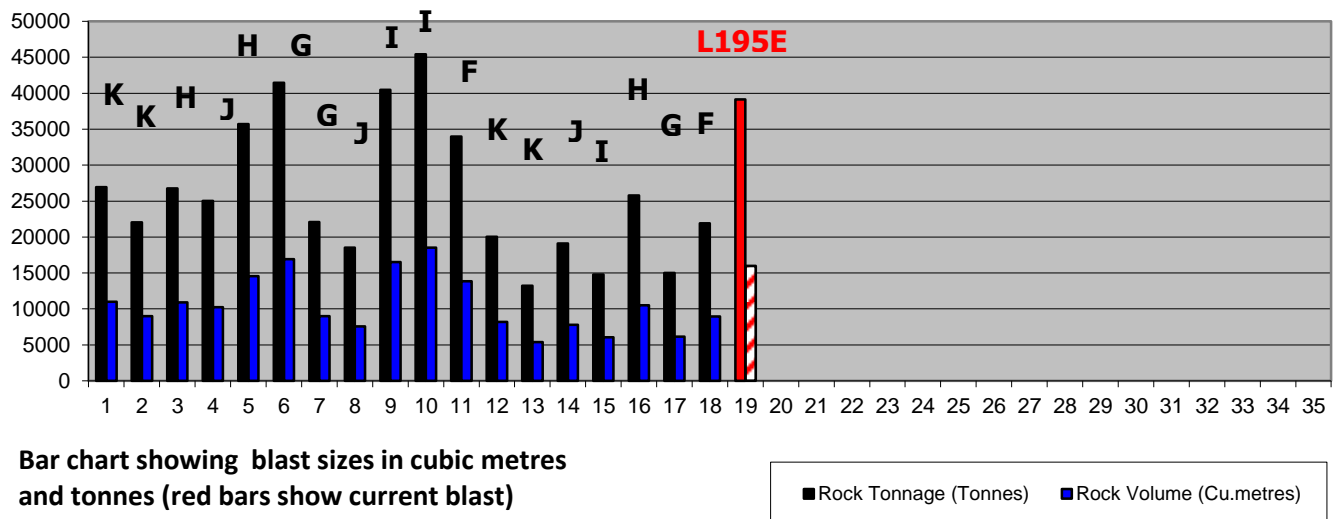
Location name and number (Monitored by Wolf)	Distance from Blast (m)	Result (maximum single plane) (mm/s)
5. Birchland Farm	522	0.469
8. Galva House	976	0.772
9. Rover unit at Birchland Way, Sparkswell	720	1.100

Data concerning the blast:
MIC: 116kg
Type of material: Killas Waste
Rock broken:
 15,967 bank cu metres
 (approx. 39,100 tonnes)
Type of blast: Production
 (No of free faces - 1)
Bench level: 194.7m AOD
Number of separate blasts: 1
Burden: 5m,
Spacing: 5m



Scaled distance regression analysis is a universally accepted technique that allows blasting practitioners to predict and design blasts by determining the relationship between elements of the blast design that can be measured prior to blasting (e.g. charge weight & distance to a monitoring location) and the maximum vibration level produced by the blast at the monitoring location). Vibration measurements taken at varying distances from blasts with varying maximum charge weights can be plotted to investigate the relationship between scaled distance and ground vibration (PPV) as shown above.

When they contain sufficient data, regression plots like this one are used for prediction and as a basis for refinement of blast designs.



Note: 8th April 2016 was the 18th blasting day, but the blast on the 8th April was blast number 19. This discrepancy arises because blasts 7 and 8 took place in different locations on the same date (1st March 2016), one immediately after the other.