APPLIED DRILLING AND BLASTING TECHNIQUES FOR BLAST CASTING AT TRAPPER MINE CRAIG, COLORADO

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Abstract

This paper discusses the drilling and blasting techniques used in blast casting at a large western coal stripping operation. Areas of emphasis include:

- Pattern development which includes burdens and spacings, tests of various delay sequences, and measures taken to minimize coal losses due to blasting.

- Testing of various explosives and loading designs including the use of slurries and emulsions.

- Techniques used in drilling large diameter, angled blast holes in steeply dipping topography.

- The effects of blast casting on dragline production and scheduling.

- Blast casting's effect on spoil stability.

- The blast casting results achieved at Trapper Mine during the last three years.

- The evaluation of blast casting results using surveyed quantities in conjunction with video tape recordings.

- Personal computer analysis of blast casting results and coats in comparison with buffer blasting programs.