A NEW GENERATION OF DRILLING AT THE MINNTAC MINE

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The Minntac Mine drills and blasts approximately 75 million long tons
This requires drilling one million feet of 1 6-inch diameter holes. We ar
replacing our old generation rotary blasthole drills (Gardner-Denver 120
61R's) with new generation rotary blasthole drills (Bucyrus-Erie 59R's a
This paper compares the primary functions of the two generations of dri
air and it's affect of particle size, penetration rate, and bit life; the differ
of the old generation drill chain/hydraulic pulldown systems compared t
pinion/electric pulldown systems; and manual controls of the older gene
compared to Programmable Logic Control (PLC) and Automation.
Stratalogger Systems have also been installed on the new generation dri
pulldown force, rate of penetration, rotary torque, vibration, and compre
of actual blast pattern design, bit performance evaluations, and equipme
evaluations using this data will be explained. The potential for improve
on-the-fly pattern design, and real-time drill parameter changes will also