



TIRE MANAGEMENT

NEVADA UNDERGROUND MINE
CASE STUDY

1505 NEWLANDS DR E
FERNLEY, NV 89408

TIRE MANAGEMENT

RESULTS FROM A NEVADA UNDERGROUND MINE

SUMMARIZED FROM A PRESENTATION GIVEN AT THE 2004 ELKO MINE EXPO

Tires represent a significant procurement expense for mining operations today. Underground operations have much more aggressive conditions and practices than a surface operation. These aggressive operations have a tremendous impact on tire performance and the expense of operating tires.

At one particular Nevada underground operation, the mine has over five hundred employees and operates twenty four hours a day, seven days a week. 1,800,000 ore tons are produced annually from 28 different levels and over 56 miles of drift. 154 different pieces of equipment are in use, which represents 620 different wheel positions to maintain; this is just the equipment that operates the underground operations only.

D&D Tire, now Purcell Tire, took over the tire management of this operation in February, 2003. Approximately 98% of all tire maintenance activities are performed underground, either in the maintenance shop areas or in the drifts where the vehicles are working. A solution focused approach was taken to managing the tire operation. After defining the opportunities, a plan of action was established that focused on: safety, best operating practices and cost; highest production; uncompromising service; and benchmarking with a proven tire tracking and evaluation program.

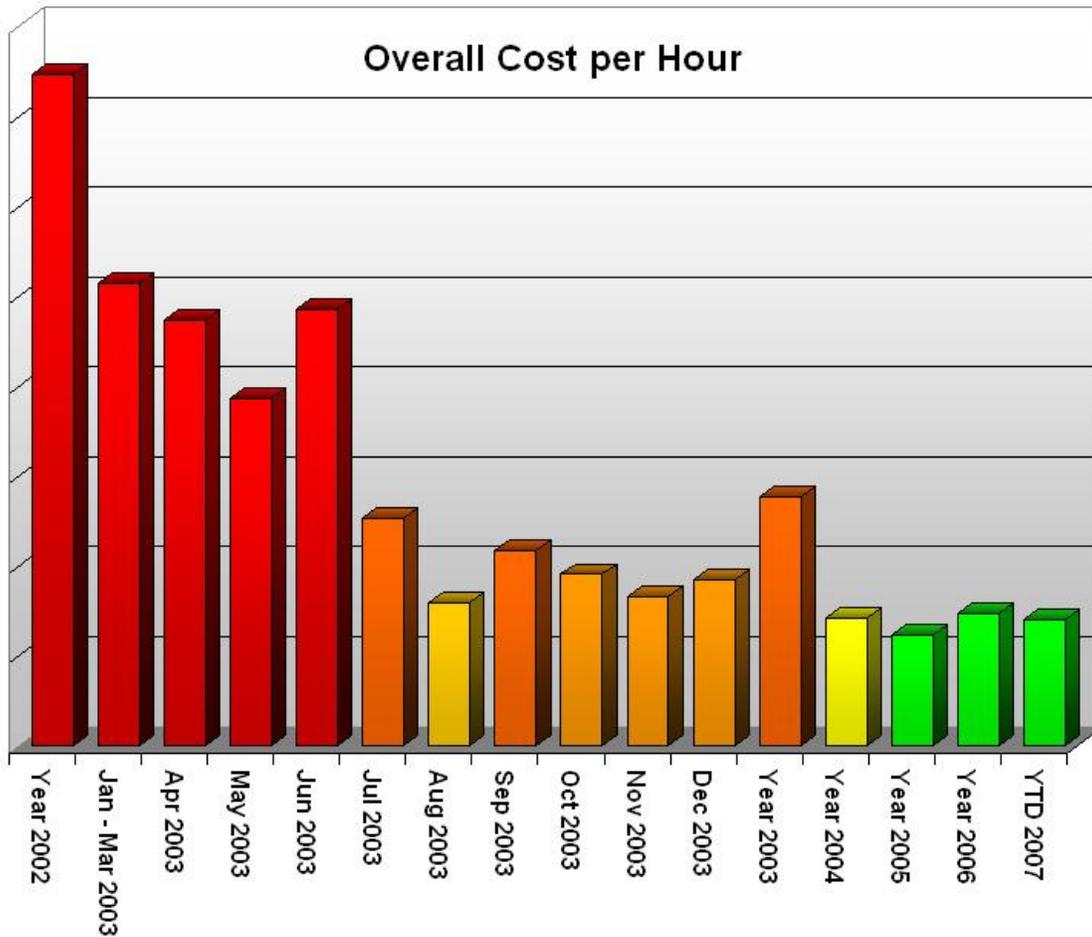
A Tire Management Team was established to help implement and maintain the plan of action. This team was comprised of a tire account manager, tire technicians, and mine personnel from operations, maintenance, engineering, and management. This team approach created a sense of ownership not only by those directly involved with tires, but all other organizations working in the mine. A comprehensive tire program will not succeed without all of these different groups coming together with one common goal. The support of all personnel at the mine site is necessary to help a tire program succeed and achieve the best possible operating cost.

In order to get the support of all personnel, the mine required all of their employees to attend a Tire & Wheel Awareness class put on by the Tire Management Team. This class was a venue to help educate employees on tire issues and show them how they are a part of a successful tire program. Other classes were held that addressed the Best Practices of Operations. These ongoing classes are required for all new employees and available to all who choose to attend it as a refresher course. All employees are made aware of: safety issues with tires; best practices when dealing with tires; common issues that harm a tire performance; and actions that help to reduce the overall operating cost of tires.

After the Tire Management Team put their plan of action into play, they immediately saw measurable results of their work. Tire damage dramatically dropped and had more consistent air pressures. Equipment downtime was reduced as a result. Problematic areas of the mine were identified by implementing a Flat Tire Report. They found out that 80% of damage tires came from only 20% of the mine. By focusing their attention on these areas, it continued to reduce tire damage and vehicle downtime. Fewer tires were scrapped as a result of increase performance and reduced damage rate.

By the end of the first year, all of the reductions in tire damage and down time resulted in a savings of 1,248 man hours, on tire work, than the previous year. The overall cost per hour on tires

dropped over 60%. The second year saw that improvement continue as cost per hour dropped by almost another 50% (see inserted chart). Every vehicle group saw a reduction of tire damage, increase overall tire life hours, and more production due to less downtime.



The operation was able to maintain a much lower cost per hour on all vehicles even well into the tire shortage, where tire prices increased dramatically. The Tire Management Team attributed their success to their plan of action. They consistently reviewed their plan and made changes as new challenges, problems, or opportunities presented themselves. Progress was charted monthly and yearly, and reviewed; not only by the Tire Management Team but by the different crews working at the mine.

Tires represent a huge investment; a very significant and necessary procurement expense for any mining operation. Proper tire management is critical to help ensure production goals and profitability are reached. The days in which a tire dealer can just sell a tire are long gone. Mining operations need help from tire experts not only to obtain the best tires for the application, but also help the operation in every way possible to increase tire performance and the best possible operating cost.

Purcell's Tire Management program can help any mining operation improve their tire performance and help to control the tire budget, as well as help the operation to meet their production goals. For more information, please contact Purcell Tire or visit their website www.purcelltire.com.