



CARE[®] reliability services trial leads to significant payoff.

Our client, one of the largest open-pit metal mines in the world, has been in production for over 50 years. Employing truck and shovel technology, the mine operates 24 hours per day, 365 days per year in temperatures ranging from -40°C to +40°C. A Fluid Life oil analysis customer since 2013, the mine has an internal reliability department as well as an external reliability consultant.

FLUID LIFE
EQUIPMENT RELIABILITY SERVICES

EDMONTON, AB | BRANTFORD, ON | MINNEAPOLIS, MN TOLL FREE 877.962.2400 www.fluidlife.com

ALL WAYS RELIABLE.

PROBLEM

The mining industry is highly competitive, and with commodity markets tightening, there is constant pressure to work ever more efficiently and effectively. The reliability department at the mine wanted to improve on the services it was receiving from its external consultant while decreasing expenditures, while simultaneously decreasing the amount of internal work necessary to manage the program.

IMPLICATION

For this customer, as with all long-running and complex operations, introducing change is a challenge. Procedures have been honed and refined over many years, and long-term employees are often loyal to them. Improving service while decreasing costs, however, requires that change be understood and embraced to be successful.

NEED

In order to provide management with the confidence necessary to consider changing the manner in which external reliability services are delivered, Mo Habib, Regional Account Manager, arranged for a six-month trial of Fluid Life's CARE® (Condition Assessment & Reliability Evaluation) program, focusing solely on the client's fleet of haul and water trucks, and to run in parallel with the services already being provided by their external reliability consultant. The client wanted confirmation that the program would be, at once, more cost effective, more time efficient, and more transparent with respect to return on investment calculations, while maintaining or improving fleet reliability.

SOLUTION

Starting in April of 2015, Fluid Life's Reliability Specialists undertook a CARE® onboarding audit at the mine. The client's lubrication analysis history was downloaded and reviewed, all relevant equipment information was updated, and sample results and failure history were discussed with reliability personnel. Engines for the fleet were subdivided into emission tier groups, recognizing their different operating regimes. Equipment replacement values and projected life spans were jointly agreed to. Custom flagging limits, based on the client's own experiences, were discussed and established for iron and lead wear, and for lubricant oxidation. Fluid Life's web-based data management application, myLab®, was reviewed in depth, resulting in improvements on both the client's side and on our own. Primary, secondary, and tertiary contacts were identified

at the mine for urgent alerts. Training for the mine personnel on oil sampling and contamination control was arranged. In all, 24 action items were specified and agreed to before the trial even began.

Fluid Life Reliability Specialists then began conducting detailed reviews of close to 300 samples per month for the six-month trial period. Reports were classified as Normal, Reportable, Unacceptable, and Severe. For Reportable, Unacceptable, and Severe, explanations and recommendations were provided.

Over the entire six-month trial, close to 1800 samples were reviewed, prompting over 200 maintenance alerts. Recommended actions arising from these alerts ranged from requesting an immediate resample to confirming the lubricant in service to taking the equipment down immediately for inspection and trouble-shooting.

SAVINGS

Each time a serious alert was identified by the Fluid Life CARE® team, the client was asked to rate, on a scale of 0 to 5, what portion, if any, of the equipment's pro-rated replacement value was saved as a result of the alert. For example, if an alert identified a previously hidden problem and resulted in completely preventing the premature failure of a component, the client would rate the "save" as a "5"; if the alert identified a problem that had already been found and resolved through some other means, the client would rate the save as a "0". For each alert, the client confirms what fraction of the replacement cost of the component was saved.

Over the six-month trial period, confined to just the haul and water trucks, the client confirmed over \$1.018 million in savings, for a rate of return on the CARE® Program alone of over 3700%.

If you want to leverage Fluid Life's expertise and experience to achieve your reliability and profitability goals, contact a Fluid Life representative about the CARE® Program.

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