CASE HISTORY

Mining

Mobile Solar-Powered Antiscalant Dosing Delivers Fast, Economical Solution

Solenis Equipment Services

Customer Challenge
A remote tailings pond is an integral source of mill water supply for a large gold mine in the Western U.S. After 18 months, however, the pond water intake and 18-inch distribution piping became blocked with hard scale. Following cleanup, a scale prevention program was developed requiring multiple chemical feed pumps. The mine managers determined that bringing electrical power to the pond would be costly, take staff away from more urgent issues, and take considerable time to implement.

Recommended Solution
Solenis, the leader in scale control solutions for the mining industry, designed and provided a custom-built mobile, solar feed skid that powered three pumps feeding Zalta™ antiscalant to the pond reclaim water intake system. The unit was delivered and installed in about 2 months, with the following specifications:

- Trailer is 7 feet by 8 feet with standard trailer hitch
- Fully solar-powered with 7-day battery life
- 500-gallon tank to maintain inventory
- 3 pumps and controls in weather proof cabinet with a rain guard

Results Achieved
Deploying the Solenis solar-powered mobile treatment system was economical and allowed treatment to start in a matter of weeks. Over $200,000 of annualized cost savings were quickly realized. Also, as the pond matures and changes to the piping are required, this dosing system can be quickly moved to maintain un-interrupted scale control.

RECORDED BENEFITS

- Avoided cost of bringing power to remote tailings pond
- Avoided 6 days of downtime per year due to scale formation
- Mine staff free to address other responsibilities
- Scale control program implemented in only 2 months
- 8-week payback on the investment in this system