

The Pellet Sump - Taconite Mining

THE CUSTOMER

A taconite mining plant relies on its pellet overflow sump for pelletizing—the process of turning fine iron ore concentrate into small taconite pellets. In the final stages, the pellets pass through a kiln to harden before being sent to cool in the annular cooler. Occasionally, the weight of the pellets overloads the cooler pallets, causing “hot reds” to discharge into the sump. The overflow sump pump, located under the annular cooler, is designed to return spilled pellets back to the pelletizing process to prevent wasted product.

THE CHALLENGE

The customer experienced frequent issues with its pellet overflow sump, resulting in costly replacements and operational disruptions. The competitor pumps installed in the application lasted an average of two to four months before needing to be replaced—with each pump costing roughly \$50,000.

THE SOLUTION

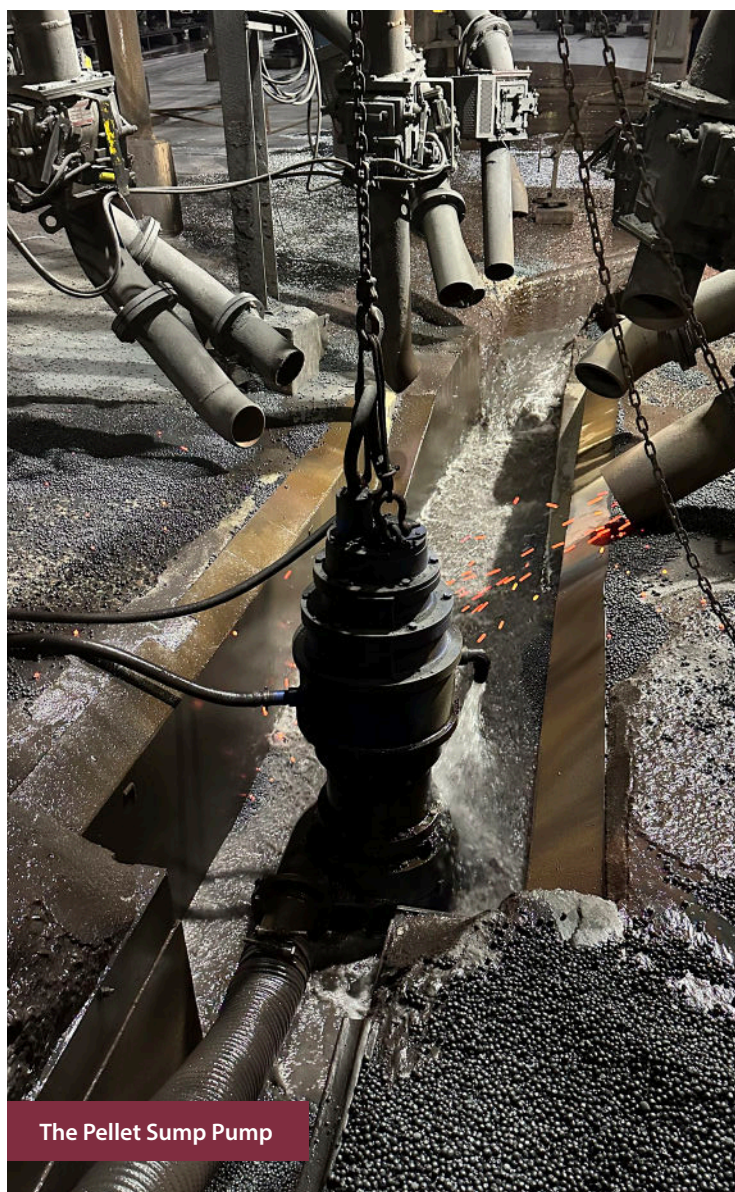
GPM provided the mine with a trial GPM-Eliminator™ unit, confident that our Made Tough™ pump would deliver greater reliability and cost savings than the competitor. We collaborated closely with the customer to redesign their sump and appropriately size a GPM-Eliminator submersible pump, working across our engineering, service, and sales teams to provide an efficient, long-lasting pump solution for the mine’s demanding application.

When the pump was installed, the GPM-Eliminator Model #SBLH6S50-6T4-12.99-A performed exceptionally well—handling a tough slurry mix of water and taconite pellets with consistent, reliable output. For more than six months, our team has continued to monitor the site weekly, confirming steady performance and durability under the heavy load.

THE RESULT

Today, the customer is satisfied with the results and issued a purchase order for the trial pump, further validating the success of GPM’s customer-centric approach and the strength of our GPM-Eliminator in the toughest mining applications.

GPM focuses on building close relationships with our customers, and we rely on real system data to fully understand their issues and provide cost-effective solutions with tangible benefits. We’re proud to have helped this customer find a proven, long-term solution that exceeded their expectations and will save them an estimated \$200,000 in the first year alone.



The Pellet Sump Pump