

WASTE SAND SLUDGE LADEN WITH TAR

EXTRACTION PLANT SETTLING LAGOON

THE CHALLENGE

This highly abrasive settling pond waste contains tons of sand and is laden with sticky tar and chunks. Vacuum recovery is accomplished using 25 inches of mercury and discharged with 100 PSI air pressure. No centrifugal or submersible pump or vacuum truck has ever been able to handle this transfer task.

The current, arduous method to remove this sludge and solids from these primary settling ponds is to scoop it up with long reach loaders and transfer it into large trucks for transport. This equipment is requisitioned from a demanding production schedule. As the trucks travel along the roadway to dump the sludge for permanent placement, an environmental trail of sticky sludge marks the journey.

SUPAVAC SV110-V

This SupaVac SV110-V pump system was recently put to the test on a small scale at an extraction plant settling pond. This tar-laden waste sand is abrasive and resistant to flow. These ponds, containing sheets and chunks of hardened tar, have ongoing operational, maintenance and environmental issues.

SUPAVAC SV250

For larger scale operations, based on experience in similar installations, SupaVac envisions injecting air into the lagoon sludge before and during pumping operation to increase the lubricity of the tar components, thereby facilitating a smooth operation. The SupaVac air-assist pickup nozzle, specifically designed to handle this application, when operated with the larger recommended SV250V pump, will enhance the vacuum recovery of this tar-laden sludge. This will maintain maximum flowability characteristics into the pump and for long distance transfer through the pipeline.

TAR SANDS

Using no electricity, these pneumatic displacement pumps are considered intrinsically safe for use in most plant and x-p locations. SupaVac have invested in global certifications such as CE and ATEX. These pumps operate automatically and require only minimum operator intervention. And with no rotating parts in use and no moving parts in direct contact with the harmful effects of the flow, high reliability has proven to be the experience.

THE RESULTS

- Long distance transfer through the pipeline
- Even dry sand has been pumped
- No additional water was required
- No more unscheduled downtime

