

# SVERDRUP ENGINEERING SERVICES

## PROJECT EXPERIENCE



### Mammoth Phase 2

Marana, AZ

Silver Bell Mine (SBM) hired Sverdrup Engineering Services to design the phase II intermediate raffinate pump station for the Mammoth Heap Leaching facility in the Mammoth Wash area. SBM distributes Raffinate leaching solution via a pipeline from the Main Raffinate Pond, located near the SX/EW Plant, to a booster station at the Intermediate Raffinate Pond, near the location of the Mammoth Heap Leach Pad.

The project included the detailed engineering and construction with modifications to piping and concrete to convert the station from gravity flow to pump flow, add two (2) new 700HP pumps with Variable Frequency Drives (VFD), and an Electrical House (E-House). The fifty-six-page drawing set included civil, mechanical, electrical, and control drawings. Piping and material specifications were generated for the project. An electrical e-house was designed and procured as part of the construction process. The electrical tie in was to local medium voltage overhead power line. SES procurement assistance services included preparation and solicitation of proposals from SBM-approved vendors and Contractors, bid evaluation and recommendations, and shop drawing reviews. SBM issue purchase orders directly based on design documents.

**Owner:** Silver Bell Mining LLC

**Design:** February 2019

**Inservice:** November 2019