

## // Project Experience

# Varvarinskoye Gold Project

Location: Kazakhstan  
Scope: Engineering, Procurement & Construction Management (EPCM)  
Completion: 2007

The Varvarinskoye Mine and Process Plant was built and commissioned by SENET in 2007. The two parallel streams were designed as follows: the first process stream treats the lowgrade stream by milling, cyanidation, CIL and ZADRA desorption; and the second process stream treats the high-grade ore by milling and flotation to recover a copper-gold concentrate. Thereafter, the flotation residue joins the low-grade ore in the cyanide leach.

The Varvarinskoye Plant treats 3 Mt/a of low-grade ore (< 0.2 % Cu; 2 ppm Au) and 1.2 Mt/a of high-grade ore (1.5 % Cu; 2.7 ppm Au), resulting in an overall plant design capacity 4.2 Mt/a.

The plant was designed to operate continuously at optimum efficiency with a high level of process control to enable limited operating manpower at all times. All the unit process equipment except the crusher and three leach tanks are contained in a clad building for protection against the harsh winter conditions which prevail in Kazakhstan.

