

Challenge

Issue

Reduced MTBR (22 days) of NiHard wear plate increased maintenance and spare parts carrying costs (\$27K/plate).

Goals

- Extend MTBR
- Reduce maintenance and spare parts carrying costs

Root Cause

Abrasive fines in acidic tailings slurry wears NiHard plates.



Damaged wear plate at 22 days

Solution

Preparation

- Grit blast to Sa 2.5 with 3 mil (75 µm) angular profile

Application

1. Apply one coat **ARC S2** @ 10 mil (250 µm) as primer
2. Apply **ARC MX1** @ 500-600 mil (12-15 mm)
3. Apply two coats **ARC S2** @ 20 mil (500 µm) as overcoat



Applying ARC MX1 over primer coat of ARC S2

Results

Client Reported

- Pump Efficiency has been maintained for >40% longer time with ARC lined pump parts
- Reduction of spare parts inventory

Uncoated Plate Life: 22 days

■ **Cost:** \$27,000

ARC Coated Plate Life: 32 days

■ **Repair cost:** \$ 9,000

■ **Net Savings:** \$16,000

■ MTBR extended by 45%

\$=USD



Completed wear plate ready for service