



Infrastructure Innovators Since 1994

QuakeWrap, Inc.

6840 S. Tucson Blvd., Tucson, AZ 85756

(520) 791-7000, FAX (520) 791-0600

Toll Free (866) QuakeWrap (782-5397)

www.quakewrap.com

PROJECT PROFILE

Corroded Tank Repair using QuakeWrap FRP

Repair System: Wet Layup FRP

Client: Copper Mining Operation

Project Location: Northwest Mexico

Project Synopsis:

- Three settling tanks with dimensions of approximately 75 feet (23m) X 69 feet (21m) X 5 feet (1.5m) each with a combined capacity of 200,000 gallons (757,000L)
- Tanks carry an electrolytic fluid and prior to repair were being protected with a semi-rigid liner bolted to the insides of the tanks
- A combination of chemical and age degradation caused multiple breaches in this liner, leading to subsequent damage to the concrete surface due to long term exposure to the electrolytic fluid.
- A total of approximately 8,200 square feet (762 sq m) of FRP liner was installed per tank in less than a week
- QuakeWrap's FRP system is based on bidirectional glass fiber fabric saturated with epoxy resin using a unique saturation machine
- An outer coat of QuakeBond epoxy was applied for long term chemical resistance for tanks
- The FRP lining was more cost effective than welded-in-place stainless steel linings that the plant had used on an earlier repair
- Tanks have been in leak-free operation for over five years.

QuakeWrap's FRP repair procedure included removal of the existing semi-rigid liner, removal of damaged concrete on tank walls and floors, washing and neutralization of concrete surfaces, repairing damaged concrete, preparation of concrete surfaces, and preparation and saturation of the bidirectional glass fiber fabric. Saturated FRP was applied to both vertical and horizontal surfaces.

QuakeWrap's FRP lining system is designed to:

- Restitute steel reinforcement area loss due to corrosion
- Provide efficient failure control against any natural or man-made seismic events
- Provide a leak-proof humidity barrier directly adhered to the tank's inner surface.

For more information on QuakeWrap's tank repair capabilities, contact an engineer directly at (520) 791-7000 or via email, info@quakewrap.com



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Project Photos: Before





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Project Photos: Repair and Application





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Project Photos: Finish and Operation

