

Corrosion Protection for a Double Bottom Storage Tank on Concrete Foundation using Zerust's Zerion® FVS via Internal Flood IDS

Project Specifics

Installation Dates

February 2023

Location

California, USA

Environmental Conditions

Avg. Temp. 60°F, ~50% humidity, sunny, no breeze

Asset Details

Diameter: 90-ft

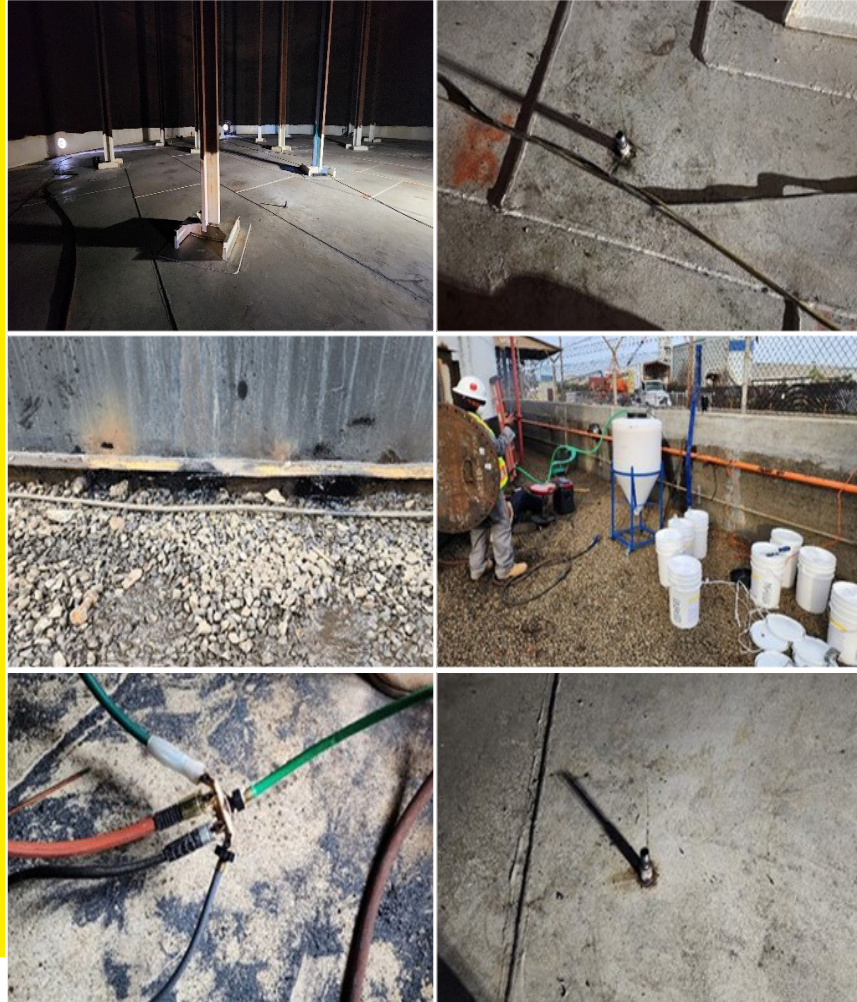
Vessel Construction: Double-Bottom, 5" Concrete Foundation, minor slope

Inhibitor Delivery System (IDS)

Internal Flood IDS

Zerust Product(s) Used

Zerion® FVS Corrosion Inhibiting Powder



Problem

The client wanted corrosion protection for a double-bottom, aboveground storage tank with a 5" concrete foundation.

Zerust Solution

The engineers at Zerust® Oil & Gas developed custom solutions for this client and successfully installed an Inhibitor Delivery System (IDS) for the targeted asset and completed the injection of the corrosion inhibiting solution slurry on the tanks using Zerust's Internal Flood IDS.

Solution Specifics

The five floor ports were welded prior to the arrival of the Zerust team. The contractor's team used their own port fittings which they assembled themselves. Once the Zerust team arrived on site, injection of Zerust's Zerion® FVS Corrosion Inhibiting Powder began. 270-gal of water was pumped into the water tank. A hose was then used to connect the water tank and the 55-gal mixing drum, where pails of FVS were mixed in batches with the water using a submersible pump in the drum.

Solution Specifics Continued

The remaining four (4) hoses were used to connect the drum to the floor ports for injection to gravity feed the solution through the ports. As there were five (5) floor ports, one of the hoses had to be switched up halfway through the injection process. Several small leaks were observed in several areas. To solve this, the team dried the leakage area and applied a spray-on sealant, stopping the leak. The injection process continued without any issues and all materials were successfully injected into the tank.

Results

The IDS installation was completed without an issue. It is recommended that a corrosion monitoring system be installed to monitor the tank's corrosion status. Contact a Zerust Oil & Gas representative regarding any questions about this report.