

## Corrosion Protection for an Out-of-Service Storage Tank on Compacted Sand/Soil by Internal Flood IDS

### Project Specifics

Installation Dates  
February 2-4, 2020

Location  
Texas, USA

Environmental Conditions  
44-83°F, 26-63% humidity, scattered clouds.

Details  
Storage Product: Unknown  
Vessel Construction: Out-of-Service, (4) Ports, Liner, No Cathodic Protection (CP) System, Concrete Ring Wall  
Foundation Details: Sand/Soil

Inhibitor Delivery System (IDS)  
Internal Flood IDS  
ER Probe Monitoring System

Zerust Product(s) Used  
Zerion® FVS-B15 (Corrosion Inhibiting Powder)



Chemical testing of the air at newly installed probe ports indicated material was making its way to all three of those locations.

**Project Specifics**  
The client wanted corrosion protection for an out-of-service, aboveground storage tank on sand/soil foundation with a concrete ring wall, liner, (4) ports, and no present CP system.

**Zerust Solution**  
The engineers at Zerust® Oil & Gas developed custom solutions for this client, and with the support of local contractors, successfully completed the injection of the corrosion inhibiting solution on the tank using Zerust's Internal Flood IDS method.

**Project Installation**  
Corrosion inhibitor solution was injected through all four (4) existing leak detection ports, including the leak detection ports previously used for the installation of ER probes.

Original injection ports were modified for installation of ER probes and for future reinjection of corrosion inhibitor. Initial ER probe readings were taken and data was recorded in the ER probe data logger. Uni-strut was used to anchor each enclosure, along with Quickcrete, as in shown in the Figure 1.

**Conclusion**  
A thorough chime seal and significant displacement of pre-existing water by concentrated FVS solution indicate that this tank should perform well in the coming months. An examination at 3-6 months is suggested to determine if environment had normalized and corrosion is decreasing as indicated by ER probe conductance values.

