



Case History for Outdoor Storage

HT 365 Preservation Coating

Background

- Customer is a Houston based major manufacturer of blowout preventers (BOPs).
- After manufacturing, parts are stored in an outdoor storage yard, where they are exposed to the elements.
- The problem is rust forming on equipment can render it unusable and destroy value. At a minimum, it will need to be reblasted, thus costing the owner more money for an additional step of blasting.



- Customer currently uses a product that prevents rust for 45 days, but is extremely difficult to apply and remove because it is lanolin-based. The current product is very thick and is perceptible on the surface of the metal.
- To remove the current product alone, the customer must utilize hand cleaning which can require of 48-72 hours of labor at \$100/hour.

The Solution

- Customer needed to remove corrosion from a 2-inch hot rolled steel plate, laser cut in 12-inch diameter circular sample with visible rust and mill scale (“Sample A”).
- Customer applied a complementary product to remove all rust to the molecular level as seen in the following picture.



- **HT 365** was applied to one side of Sample A and its entire edge. The other side of Sample A was left untreated.
- Sample A was stored outside in an uncovered area on a wooden pallet on its edge to expose both sides.
- After 63 days, Sample A was observed for the first time and did not show any signs of rust on the side that was treated with **HT 365**.
- Date of application: February 26, 2015

Date of observation: May 1, 2015 (below)



- After 90 days, Sample A was observed for the second time and had just begun to show signs of rust bloom on the sides that were treated with **HT**

365. It is estimated on the basis of the light corrosion that was observed that **HT 365** began to lose its effectiveness after 80 to 85 days.

- During the months of March and April, temperatures ranged from 35 to 90 degrees Fahrenheit. Several heavy rain storms were documented during the month of April, 2015
- The entire edge of Sample A that was also treated with **HT 365** remained rust free.
- Now, if the Customer needs to remove **HT 365** for any reason, they may do so by pressure washing the metal with **HoldTight 102** diluted at 100: 1 water to **HoldTight 102**, rather than costly hand cleaning, as required by their current product in use.



- On the side of Sample A that was not treated with **HT 365**, heavy rusting occurred.
- The applicator had started to paint this side with **HT 365** before being stopped (so that there would be a control side).
- The area where **HT 365** had been applied can be seen on the bottom sliver of Sample A where it is rust-free, the rest of that side is heavily corroded.



Result

After almost three months in outdoor storage exposed to extreme temperature swings, UV and extreme rain events, all surfaces coated with **HT 365** were rust-free. This result preserves the sample for future use without the need for expensive rust and/or coating removal techniques. At the time that the piece of steel needs to be coating it should be power washed clean using **HoldTight 102** and potable water.

