

# SOLUTIONS | Case Study

The THUMS Islands, also known as Astronaut Islands, were built in 1965 to tap into the East Wilmington Oil Field. Landscaping and sound walls were designed to camouflage the operation and reduce noise, and are the only decorated oil islands in the United States.



## THUMS Island: Grissom Waterfall Rehab

San Petro Bay — Long Beach, California

Product:

Five Star Structural Concrete® V/O



**FIVE STAR**

Specified by the World's Best™

# THUMS Island: Grissom Waterfall Rehab



**Date of Project:** August – September 2014

**Project Owner:** Occidental Petroleum

**Project Contractor:** Hugh Roberts Construction

**Market/Environment:** Oil Production

**Substrate:** Gunitite from the 1960s

**Product(s) Used:** Five Star Structural Concrete V/O®

**Size of Project:** 500+ Pails



## The Challenge

Over the years, wind and water has taken its toll on the concrete structures around the island causing a great deal of deterioration. A few obstacles to overcome were depth of repair (Tapcons were driven into the substrate for added reinforcement in the deeper areas of repair), direct sun/heat, height of repair was as high as 100 feet, and there were limitations on water saturation for presoak and wet cure. Deliveries had to be scheduled precisely as all product had to be shuttled over to the island via ferry.

## Five Star® Solution

Chosen for this demanding repair project was Five Star Structural Concrete® V/O because of its rapid-setting properties and ability to be used on vertical and overhead surfaces. Moisture sensitive coatings could also be applied in 8 to 24 hours, speeding up repair time.

This high strength, permanent concrete repair material allowed the workers to make repairs quickly and efficiently using only one product for thin and thick placement.

## Project Details

In 1965, four artificial islands were built in San Pedro Bay off the coast of Long Island to conceal oil pumping stations. In the year 2000, Occidental Petroleum purchased the islands, known as THUMS Islands or Astronaut Islands, and operations. The islands contain significant landscaping, a waterfall, and tall structures concealing the drilling rigs, including one known as The Condo and often mistaken for “a ritzy hotel” by those on land. Island Grissom is the closest to land and contains more sculptured screens than the other islands.

## FIVE STAR® SERVICES

- Design-A-Spec™ engineering specification assistance
- Technical on-call center with field and project experienced staff
- Field support representatives for on-site consultation
- Corporate research laboratory available to customize products for unique applications

For worldwide availability, additional product information and technical support, contact your local Five Star® licensee, distributor, local sales representative, or you may call the Five Star Products' Engineering and Technical Service Center at 1-800-243-2206.



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