

# Our Portfolio



VIKARTINDUR

*TITAN was contracted to remove the VIKARTINDUR, a 9,300 DWT container vessel from the Iceland's southern coast. The vessel beached, broke and heeled to 37 degrees in the surf. TITAN modified the ship's two onboard MacGregor Haggblunds cranes, making them vertical to discharge 127 containers and dismantle the wreck.*

With successes including some of the largest and most technically challenging salvage operations in history; rest assured that TITAN is ready to respond to your salvage needs anywhere, anytime. Over the past 29 years, TITAN has performed more than 400 salvage and wreck removal projects worldwide. To view an expanded list of previous work visit [www.titansalvage.com](http://www.titansalvage.com).

**M/V FEDRA** – As a result of a very severe storm, the 64,000 DWT Bulk Carrier was driven ashore at Europa Point in Gibraltar. Within hours, she broke at the number 6 cargo hold separating her bow from her stern. TITAN was already on scene in Gibraltar removing NEW FLAME wreckage, and mobilized a team to the FEDRA wreck site, taking a leading role in saving the lives of the crew by lifting them from the wreck to the land utilizing a mobile crane specifically mobilized for the task. The team determined that the bow could possibly be refloated but the stern was destroyed. TITAN was contracted to remove the fuel oil, refloat the bow and remove the accommodation from the stern before incoming winter storms destroyed them.

**Rig A TURTLE** – The A TURTLE was a 104-meter long, semi-submersible rig that grounded on a reef at Tristan da Cunha, a small,

sparsely inhabited island in the middle of the Atlantic Ocean, 2,800 kilometers from the nearest mainland, the Cape of Good Hope in South Africa. TITAN was awarded the wreck removal after attempts to refloat the massive structure by another salvage company were unsuccessful. The TITAN team successfully restored buoyancy, lightened and refloated the rig. As directed by the rig owners and with the approval of the local authorities, the rig was scuttled offshore in deep water.

**M/T YASA GOLDEN DARDANELLES** – As a member of the Marine Response Alliance (MRA), TITAN was notified when the 59,000-GT, 245-meter tanker ran aground with 620,000 barrels of fuel onboard along the north side of Galveston, Texas' safety fairway. Just six hours after contract signing, TITAN had two, 7,000 horse power tugs on site. Working under the direct command of the U.S. Coast Guard (USCG), TITAN developed an emergency salvage and lightering plan and managed the transfer of 83,800 barrels of product into an approved lightering vessel.



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**M/V APL PANAMA** – This was one of the largest refloatings of a laden containership ever undertaken. The 52,267 DWT ship, ran aground on Christmas day on the beach in Ensenada, Mexico. Operating under a Lloyd's Open Form (LOF) contract, TITAN mobilized several salvage teams and specialized salvage gear from various depots in the U.S. and overseas. Included in the mobilization were 20 truck-loads of salvage gear, five 300-ton hydraulic pullers, seven tug-boats with a combined bollard pull of 500 tons, a flat-deck barge upon which the pullers were mounted, three crawler stick cranes, a SkyCrane helicopter and a dredge, among other things. TITAN safely removed all fuel from the ship, along with more than 1,200 containers, and then removed large quantities of sand from around the vessel in order to refloat it.

**SS JACOB LUCKENBACH** – On July 14, 1953, the 1944-built, C-3 ocean freight vessel sank in the environmentally-sensitive waters of California, following a collision with the SS HAWAIIAN PILOT. The LUCKENBACH was resting in 176 feet of water and was broken into three pieces, when the USCG hired TITAN to provide an assessment, removal and oil disposal. TITAN successfully recovered 85,000 gallons of heavy bunker C oil from the wreck.

**M/V NEW FLAME** – After a collision with another vessel a few hundred meters south of Europa Point, Gibraltar the forward portion of the fully laden 41,000 DWT bulk carrier settled about 30 meters deep on the sea bed. Her stern remained afloat. Over the course of the next several months, her fuel was removed and efforts focused on developing a technique to cut the badly damaged bow of the ship from the floating stern. TITAN was hired to cut the ship into two parts using TITAN linear chain pullers from a floating barge. During a severe winter storm the stern sank before the plan could be implemented. The subsequent wreck removal became one of the more difficult in history. The location of the wreck in the straits between the Mediterranean and Atlantic made diving extremely difficult due to high and unpredictable currents and often non-existent slack water. TITAN developed a system to protect divers from the currents and get them to the wreck in all conditions using a "dive tube". Approximately 39,000 MT of cargo was removed before the hull was lifted. The engine room was lifted in a single 3,000-ton lift, placed on a barge and scrapped in Belgium.



GALAPAGOS DISCOVERY, Panama Canal

**UB38** – The World War I German submarine sank in 1918 after running into a minefield while trying to escape British destroyers, in what is now the southwest lane of the Dover Strait Traffic Separation Scheme. Although the submarine, resting with a clearance of 23.5 meters, had not been a hazard to navigation, with vessels now having much deeper drafts, it became a concern. Two delicate issues were involved with the operation: consideration for the ordinance that remained on board including six torpedoes and deck gun ammunition and the remains of the 27 crewmembers. The salvage plan ensured the submarine remained horizontal during the lifting operations with minimum disturbance to the ordinance to address the first concern. Although the submarine is not an official war grave, close liaison between the German government, Trinity House and the salvors ensured that correct protocols were observed to respect the final resting place of the crew. The submarine was lifted a few meters off the seabed using the a self-propelled multi-purpose sheerleg and placed in its new location about two miles away in 40 meters of water.

**M/V SERGO ZAKARIADZE** – The 16,502 GT bulker laden with 17,000 tons of bulk cement, grounded while entering the Port of San Juan, Puerto Rico. The grounding was severe, with most of the vessel's double bottom holed by rocks. The vessel's port side was completely exposed to the Atlantic Ocean and water washed over the decks. The starboard side was against the breakwater at El Morro National Park. In order to refloat her, 10,000 tons of cement had to be lightered using TITAN's KARLISSA B jack-up crane barge, with a second crane put on board to move cement from the forward to the after holds.

**M.T. KASHMIR** – The 45,000 DWT product tanker was severely damaged in a collision near the entrance to the Port of Jebel Ali, United Arab Emirates. As a result, the vessel was badly damaged and fire erupted both onboard and in the water. TITAN signed a Lloyd's Open Form (LOF) contract to lighter the remaining 29,000 tonnes of Kangan Condensate cargo. TITAN lightered the cargo and redelivered the vessel in 24 days with the help of local partners and International Salvage Union subcontractors Mubarak Marine and subcontractors Dubai Ports World.



New Flame, Europa Point, Gibraltar