



ENHANCING SUSTAINABILITY, PERFORMANCE AND EFFICIENCY WITH BIOBASED FLUID

RSC ENVIROLOGIC® CASE STUDY ON PRO-DIVE UNDERWATER APPLICATIONS

Underwater construction and dredging applications demand companies who understand the challenges of operating in sensitive environmental areas. Successful contractors meet those difficult challenges with a balance of the right expertise, the right equipment, the right employees and the right environmental products. In the realm of environmentally acceptable products, readily biodegradable hydraulic fluids can help underwater construction contractors to successfully limit their ecological impact and simultaneously accomplish the job specifications.

BACKGROUND

Based in Ottawa, Ill., Pro-Dive, Inc., is a



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professional underwater construction, repair, inspection and salvage company. The family-owned business has been in operation for nearly 38 years, conducting repairs and maintenance in a variety of industries including potable water storage facilities, pipelines, bridges, dams, search and salvage, power plants and dredging. Pro-Dive is committed to providing dependable, efficient diving and dredging solutions to their customers in a hazard-free environment.

Pro-Dive's dredging services include routine diver-operated dredging under riverboat casinos and related docks. Using an IMS Versi-Dredge machine that

often stays in the water for long periods of time, the company must adhere to environmental regulations regarding spills and leaks. Other underwater operations include diving, underwater construction, demolition and inspections. The company uses underwater hydraulic tools for a majority of their work including PortaCo and Stanley power units, hydraulic pumps, anchor drills, jack hammers, chop saws and chain saws. Other projects include working with large contractors to build new water intakes, bridges, dams and other structures near water.

CHALLENGE

Pro-Dive's dredging operations require a hydraulic fluid that is safe and non-hazardous to the environment. The company is very concerned about its environmental footprint and staying within the strict safety regulations enforced in the marine dredging arena. If a spill or leak occurs in a marine environment, damage liability costs can add up to more than \$30,000*, not including other remediation costs and years of toxicity in the water.

SOLUTION

In an effort to avoid heavy fines and safety concerns by using traditional petroleum-based hydraulic fluids, Pro-Dive turned to RSC EnviroLogic® HF 32[†], a readily biodegradable** hydraulic fluid by RSC Bio Solutions. The non-hazardous lubricating fluid is derived from plant-based technology, making it safe for all ISO 32 grade hydraulic

systems. Pro-Dive has relied on RSC EnviroLogic HF 32 for approximately eight years to meet EPA and other regulatory standards, and is completely compatible with its dredging equipment.

Pro-Dive chose this type of lubricating fluid because, unlike petroleum-based fluids, the RSC EnviroLogic HF Series does not leave sheen in the water in the event of a spill or leak due to its biobased and plant-derived properties. Pro-Dive also appreciated the readily biodegradable timeframe and minimal clean-up cost that EnviroLogic provides in the event of a spill or leak.

"In our business, safety and maintaining a hazard-free environment are of the utmost importance. When looking for a suitable hydraulic fluid, we knew that our dredging machine required something that would not harm the environment and avoid major fines from the EPA and other regulatory entities," said Justin Scherf, Pro-Dive's vice president of operations. "We've used RSC EnviroLogic for years and will continue using the fluid in the future for its safety features."

RESULTS

Spills and leaks are a fact of life in the dredging industry, but using the right products can make all the difference in terms of cost and environmental impact. Because Pro-Dive had been using EnviroLogic when the company experienced a leak, it was extremely pleased with the ease in clean up

*Liability costs vary on situation. This number comes from a value study by RSC Bio Solutions.

**ASTM 5864 and ASTM D7373 compliant

†Previously EnviroLogic® 132 Hydraulic Fluid

and minimal remediation costs. These costs would have been crippling had they been using traditional oil-based lubricating fluid. Pro-Dive found that the EPA and other regulatory bodies were grateful that the company had used a biobased solution and were thus less inclined to impose major fines because of the biobased fluid and fast biodegradability time.



ABOUT RSC ENVIROLOGIC® HF SERIES†

RSC EnviroLogic® HF Series hydraulic fluids, including RSC EnviroLogic HF 32 fluid used by Pro-Dive, are readily biodegradable, non-hazardous fluids intended for hydraulic systems. Formulated from readily biodegradable, low toxicity base stocks that afford exceptional oxidation and thermal properties, the RSC EnviroLogic HF Series can perform in temperatures of -30° to 200° F and pressures up to 5,000 psi. The RSC EnviroLogic HF Series products are an ideal solution for hydraulic systems used for underwater construction and repair applications, especially those operating in environmentally sensitive areas.

The RSC EnviroLogic fluids exhibit enhanced wear protection, cleanliness and longer life than conventional petroleum hydraulic oils, while meeting ISO/SAE grade specifications. RSC EnviroLogic HF Series products are direct replacements for a broad range of ISO/SAE grades of petroleum-based hydraulic fluids and reduce environmental impact in the event of a leak or spill.

RSC EnviroLogic HF hydraulic fluids and their constituent components have been evaluated by independent laboratories, and the test results confirm RSC Bio Solutions products meet the 2013 VGP definition and requirements of Environmentally Acceptable Lubricants (EALs) including “Biodegradable,” “Minimally Toxic” and “Not Bioaccumulative.”

†Previously EnviroLogic® 100 Series

For more information about RSC Bio Solutions, visit us at rscbio.com or call +1 704.684.6100.



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