

Case Study



ATEX Application for Water Re-injection

Cat Pumps (U.K.) were contacted by an onshore wellsite based in the South of England, looking for a complete pump and motor unit that was able to deliver the pressure and flowrate required for their water injection “downhole re-injection” system. Following an online search, they discovered via the Cat Pumps (U.K.) website that Cat Pumps offer ATEX Pumps and Pump Motor Units that were a suitable solution for their application.



Our customer drills, appraises and develops any hydrocarbons found at an onshore wellsite in the Weald Basin in the South of England. During this process our customer wanted produced water from oil and gas fields to be reinjected into the formation to stimulate hydrocarbon production in aging wells. This is known as water injection or water flooding. Produced water is very expensive to dispose of, so it is cost effective to re-inject into designated wells, back into compatible ground formations.

Water injection into oil wells involves the following steps:

- Injection wells are first drilled close to the producing well. An injection well is a well that is designed to channel water into the surrounding formation in proximity of a producing well to stimulate hydrocarbon production or for fluid disposal purposes.
- Produced water or treated water is pumped into the formation under high pressure. Tests may be carried out to ensure that the produced water to be injected is compatible with the formation, therefore the water may be treated to remove fine particles that might clog the well and oxygen that encourages the growth of bacteria.
- The pressurised fluid exerts a sweeping force that collects existing hydrocarbon from hard-to-reach areas in the formation, driving the products toward a nearby producing well for collection.

Cat Pumps has provided high-pressure pumps, pump systems and components to the well drilling industry for over 30 years. Due to the field-proven dependability and superior suction capabilities, our pumps have become the industry standard for water injection applications worldwide.

With field-proven dependability in applications around the globe, Cat Pumps provides the best value for water injection systems.

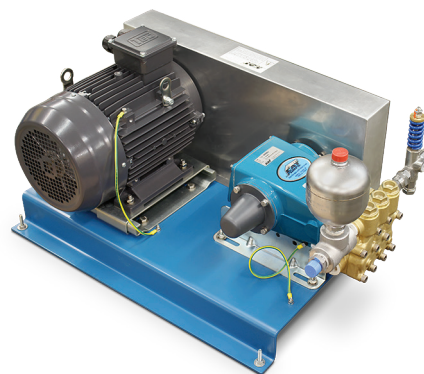
Our customer advised:

“Cat Pumps had a very good understanding of our requirements. Their Technical support, after-purchase correspondence and ease of delivery to our location, made it a pleasure to do business. Any further requirements, we will contact Cat Pumps as our preferred supplier.”

Case Study Application Specifications

Model No. E22493

Cat Pumps Pump Model:	1540E.DEx
Pump Pressure:	50 bar
Pump Flow:	73 l/min
Fluid:	Water
Temperature:	52°C (94° F)
Motor:	7.5 kW 1450 rpm 400/3/50 IP55 TEFC, IE3 High Efficiency
ATEX:	Zone 2



For more information on ATEX Pumps and Custom Units, call us on 01252 622031 or visit www.catpumps.co.uk/products/atex-plunger-pumps.asp

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