

# Water Shut Off In Crossflow Conditions Using One of the World's Shortest Retrievable Plugs

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Region: New Zealand



## Key Capabilities

- Successful isolation of the water producing zone.
- Shortest plug in the market with less than 1.2m length whilst set.
- Zero-downtime operation.

## Challenge

A major operator in New Zealand was looking to maximise assets where a Gas well had notable water cut production. A water shut off retrievable bridge plug was requested to isolate lower perforation zones without jeopardizing the well delivery. This whilst also maintaining short rig up height to accommodate the total PCE length, either on e-line or slickline.

The operator required the plug to be located downhole with potential cross flow between zones at high deviation, without compromising the setting process or risking isolation integrity.

## Solution

After evaluating well parameters and requirements we recommended our Matrix plug. The Matrix plug is one of the shortest plugs in the market measuring just 1.2m in length whilst set, and qualified to ISO14310 V3, 5000 psi at 122 C°.

We performed a cross flow simulation in a short timeframe and confirmed the allowable setting flow rate for the job. The calculations showed the Matrix plug could be set within the supplied cross flow and was suitable for the isolation environment. The assembly was modified to allow rollers to be run below to achieve setting depth.

## The Result

The preparation and job execution went without issue. Collaboration between different service companies went well, resulting in a zero-downtime operation. Once the Well was opened up it confirmed successful isolation of the water producing zone.



## Matrix Retrievable Bridge Plug (MP)