

## **Cleaning Produced Water from Gas Well**

| Location            | Colorado & Texas USA<br>(Installation: June 2019) | Hydra-Cell model | D66XKBGNNECH                              |
|---------------------|---|------------------|---|
| Type of application | Cleaning  | Flow rate        | 212 l/min (56 GPM)                        |
| Liquid              | Produced Water from Gas Well                      | Pressure         | 35 barg – Discharge; 1 to 13 barg - Inlet |

## **Application details**

In gas production the produced well fluid is separated into produced water, sand and gas by a 3-phase separator. Whilst the produced water and gas can be transported from the separator, sand build up can be a problem. To solve this problem an intermittent cleaning process is undergone by using the produced water from the gas well through a sand jetting manifold which cleans out the sand at the base of the gravity separator.

The cleaning cycling is set for on a timed interval, but there is also a pressure sensor which detects excessive build-up of pressure in the separator as a result of excessive sand build up. The cleaning cycle is then instigated.

The produced water from the separator is used by the D66 Hydra-cell pump to supply the sand jetting manifold.

As at 2023, 10 systems have been installed; with installations on going as needed.

## Advantages of Hydra-Cell pump on this application

- The customer's requirement was for a seal-free, packing-free pump to handle the corrosive and abrasive produced water.
- The D66 Hydra-Cell pump can handle a wide range of inlet pressures, -0.5 barg to 17 barg this was important due to the variation in pressure in the 3-phase separator.
- The D66 Hydra-Cell pump being a true positive displacement pump means that flow rate is independent of pressure. So, if the jetting manifold started to block the pressure would build, clearing out the blockage. A Centrifugal pump flow rate would drop off and the jetting manifold would block completely.

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