

CASE STUDY

ClearWELL
Oilfield Solutions
Continuous Scale Control

CLEARWELL REPLACES QUARTERLY CHEMICAL INTERVENTIONS

LOCATION: Alberta, Canada
APPLICATION: Onshore gas lifted oil well
DEPTH: 3,231 – 4,085m (10,600 – 13,402ft)



BEFORE CLEARWELL

Prior to the ClearWELL system being introduced, severe calcite and limited barite scale was being deposited on gas lift valves and tubulars, significantly reducing production and performance of the well to the extent that it regularly stopped producing after only three months.

The operator carried out chemical remediation at least every three months and in some cases the well had to be milled out to regain flow. The associated annual intervention costs were around CDN \$250,000.

AFTER CLEARWELL

Installation of the ClearWELL system took less than a day after intervention and once complete, the well was returned to peak production. At the time of reporting the well had been operating for approximately two years, without any further requirement for intervention due to scale build up.

In addition to increased productivity, the costs associated with chemicals, personnel, rigging up and down, wellbore cleanout equipment and services had been eliminated.

The operator could report improved safety conditions at the well site by eliminating the hazards associated with traditional scale removal methods.

The client also had two other wells with similar problems and installed ClearWELL units at these additional sites. All three units are still successfully in operation, delivering outstanding cost and performance benefits.

QUICK FACTS

- Significant mineral scale
- Well stopped producing every 3 months
- Annual intervention costs c. CDN \$250,000
- Significant NPT
- ClearWELL system = continuous production
- Currently 2 years without intervention due to scaling
- Subsequently installed on two additional wells

THE PROCESS

- The ClearWELL unit is connected to production equipment at the surface wellhead – no intervention required, no loss of production.
- The unit transmits a pulsed radio frequency signal down into the wellbore or along flowlines and equipment. The pulsed signal delivers energy to the scaling ions, controlling precipitation, keeping the liquid below saturation and minimising scale growth on production equipment.
- ClearWELL use satellite monitoring to ensure optimum unit performance. Where required personnel perform regular non-intrusive equipment checks.
- ClearWELL systems are low power consumption and supplied as a certified Class 1, Zone 1. The AC signal system is corrosion neutral, no reported gauge signal interference.

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