HISTORY
A Canadian E&P company had an oil well that had declined to zero production causing the reserves to be written off the corporation’s assets. It was decided to remediate the wellbore in an attempt to revitalize. Scale samples were sourced from the flowline and forwarded to Fluid Energy Groups laboratory for solubility and compatibility testing with various Fluid products.

PROPOSAL
Fluids CSD-60 Sulfate Scale Dissolver was proposed to dissolve the Calcium Sulphate / CaSO₄ scale that had plugged off the tubing, perforations and reservoir as a result of water incompatibilities.

OPERATIONS
The operator was unsuccessful in pulling tubing due to massive scale build up in the wellbore. A pre-treatment of 3m³ of CSD-60 was bull headed down the annulus and allowed to soak overnight. After the soak tubing broke free and was successfully retrieved. A bottom hole scale sample was obtained and sent to Fluid Energy’s lab to confirm the scale properties. 22m³ / 5800 gal of CSD-60 was delivered to location and was deployed down coiled tubing through the Helix jetting BHA. The coiled tubing was deployed for a single pass bottom up and CSD-60 was jetted and squeezed at 300l/min during the cycle. The deployed product was left to soak overnight and the well was brought back on production.

RESULTS
Well production increased from zero to a current sixty (60) bbls/d of oil. The customer’s original optimistic expectation for this well was to achieve > fifteen (15) bbl/d. The attached production graph includes 8 years of prior production and timeline post stimulation. Prior three (3) years production averaged five (5) bbl/day.

VALUE
Increased Production:
- Low rate producing oil wells contaminated w/CaSO₄ can be treated in a rig or rigless fashion that exceeds payout expectations and delivers an expedited ROI.

Sustained well production is > 300% above companies expected volumes!

Increased Reserve Evaluation:
- Reserves were originally written of for this area. Trends remain in place as the operator continues to monitor results. Reserve gains will be substantial on all treatments with more planned increasing the operators booked reserves and company value.
Calcium Sulphate Scale Removal/Stimulation - Enviro-Syn® CSD-60
August 2017

PRODUCTION CHARTS

Note: Daily oil production in m³