

OASIS PETROLEUM COMPANY-OAPCO CHALLENGE

SCSR-02

Chemical Treatment for Well WQ-21
 Descaling Solution (SCSR-02)

Another success story in challenging situations was achieved by SAPESCO - SAHARA Petroleum Services - and its chemical arm - SCS -SAHARA Chemical Solutions - utilizing the R&D capabilities of SCS team and SAPESCO specialized Coiled Tubing services.

The well was treated with specialized chemicals "an advanced new formulation SCSR" that allowed the well to increase its production from 31 bbls/day to 190 bbls/day after treatment.

HISTORY:

In April, 2017, the well WQ-34 / 15- 21 was drilled to a total depth of 7650 MD and the well started to produce by sucker rod pump system with 40% W/C and 62 BOPD.

Afterwards, the well production declined to be 31 BOPD then stopped with no recovery. So, a workover decision was decided.

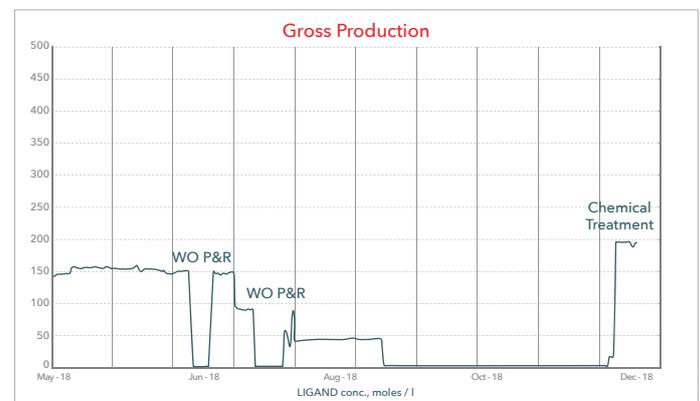
N.B: Noticed iron oxide accumulation around the sand screen of the DHP, and inside the DHP itself.

As per the compatibility study, Calcium Carbonate (CaCO₃) was the most likely scale to be formed besides the main clay mineral - which is Kaolinite - that may move through the pores as a result of injection and causes reduction of production and sudden well productivity drop.

SOLUTION:

Solubility test was performed for the scale with SAPESCO Chemical new formulation SCSR in ambient conditions indicating an effective formulation with outstanding and remarkable dissolution of the scale.

| Case | P.I (BBL/Day/Psi) | Fluid Rate (BFPD) |
|-------------------|-------------------|-------------------|
| Original | 0.36 | 150 |
| After Damage | 0.10 | 40 |
| After Stimulation | 0.46 | 190 |



RESULTS:

- The new SAPESCO Chemical (SCSR) provided a new solution to remove the formation damage and improve the well productivity higher than its original productivity.
- These results indicate that the chemical treatment succeeded to remove the induced formation damage and overcome part of the expected damage due to the retained polymers between hydraulic fracture face and the reservoir after the hydraulic fracture job.

SAPESCO and SCS are proud to have this remarkable performance again that achieved OAPCO's goals for production enhancement. The well performance after the job showed enhancement in the well productivity even higher than the well original productivity.