



المؤسسة الوطنية للنفط
National Oil Corporation



شركة الخليج العربي للنفط

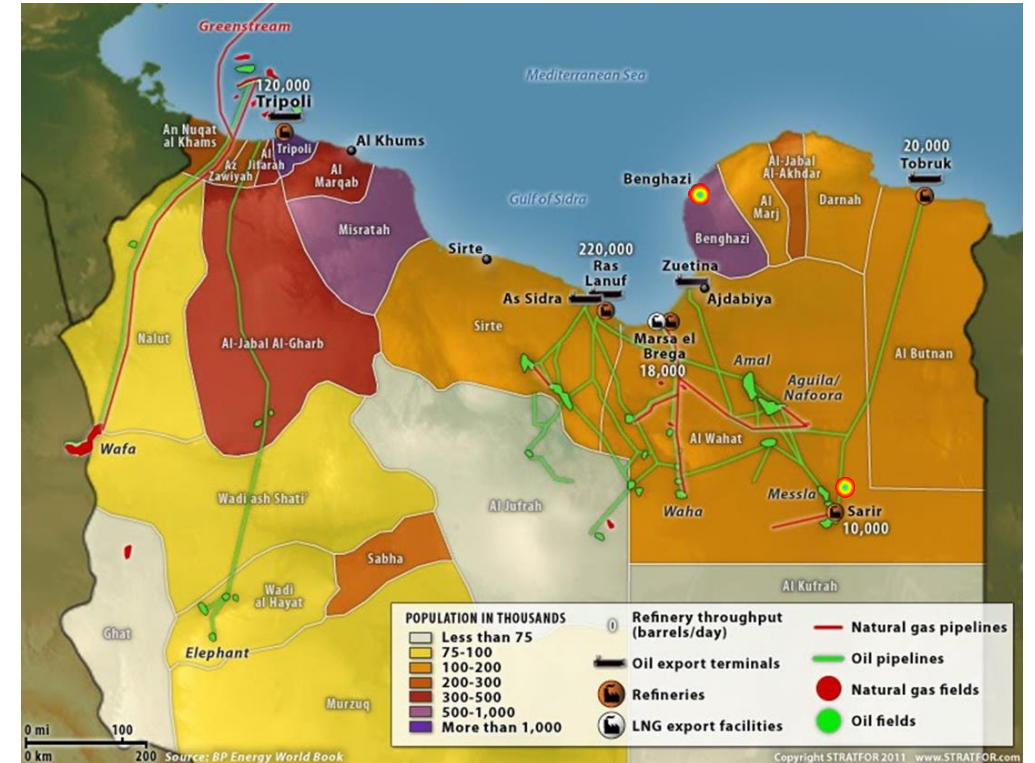
AGOCO Shut-in Wells Re-activation & Production Enhancement – Libya

Schlumberger Digital Forum 2022, September 2022



AGOCO Shut-in Wells (2019-2021) – Overview

- AGOCO Shut-In Wells Re-activation is part of AGOCO Production Enhancement Objectives which comes with study, analysis and engineering solutions to reactivate (+469) shut-in wells at different fields.
- Shut-in well reactivation campaign, included candidate selection, engineering solutions and execution started in **July-2019** with Messla Field, and Then Sarir, Nafoora,...etc.
- An Exceptional Budget for Development & Drilling was approved during **November-2019**; To reactivate (100) Shut-In Wells (as PHASE-1) with the objectives to increase Oil Production to **48,622 BOPD** (Expected Production).





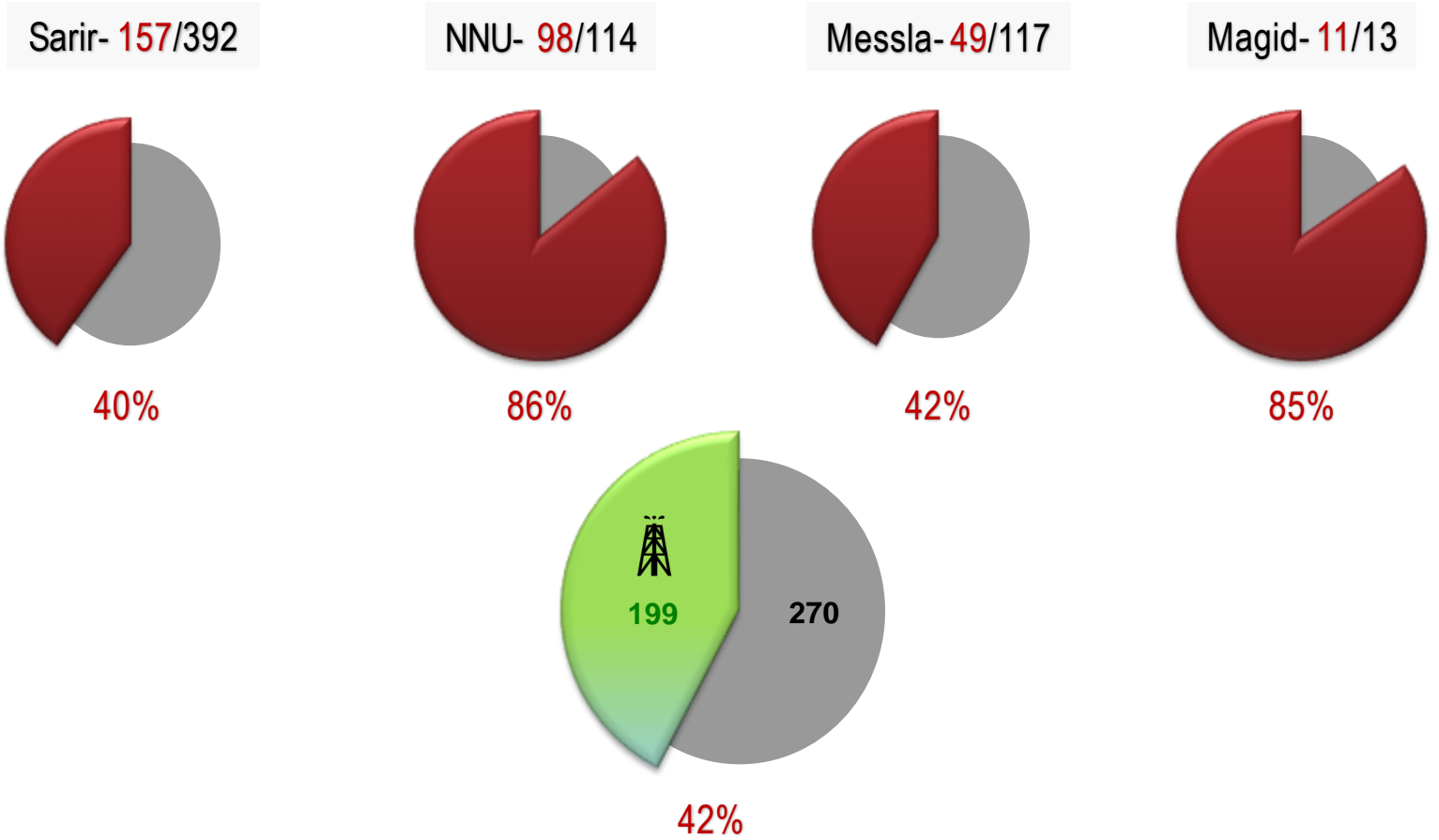
AGOCO Shut-in Wells % By Field, As per 31-July-2019

● Shut-in Wells ● On Stream Wells

● Main reasons for Shut-in Wells:

● High Water Cut, Low fluid entry, Reservoir evaluation, No Flow to Surface , Pump change out, Initial Completion...etc. (Shut-in Wells requiring Workover, **199** wells out of **469**)

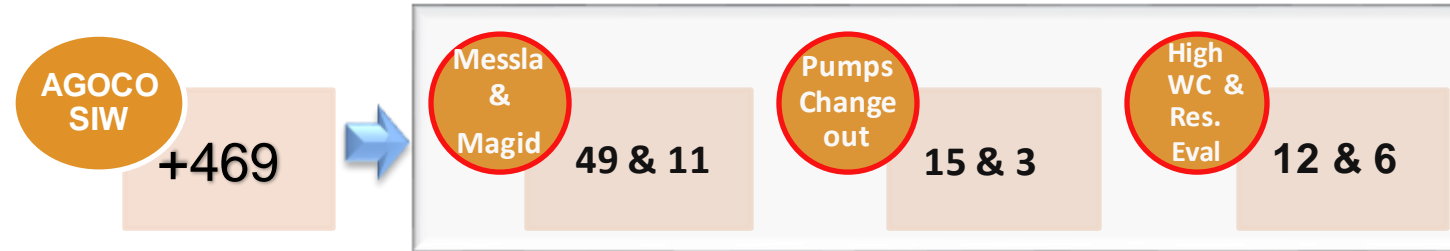
● Power problems, Gas compressor, No Flow Lines/ Flow Lines Repair, Work at Station, Surface facility...,etc. (Shut-in Wells not requiring Workover, **270** wells out of **469**)



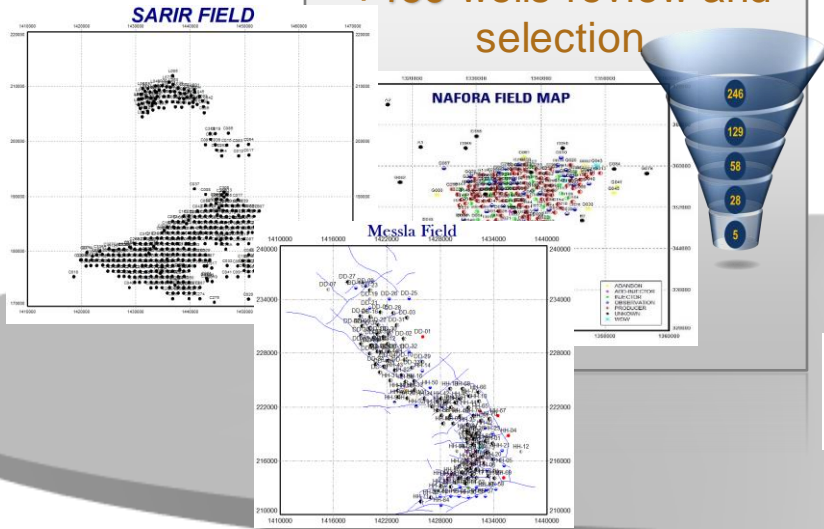
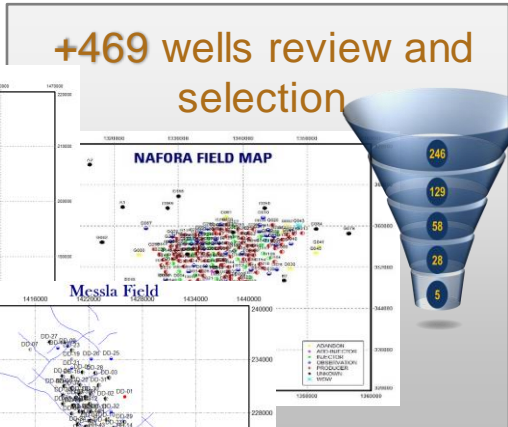


Two Steps Analysis - Primary Pool Analysis

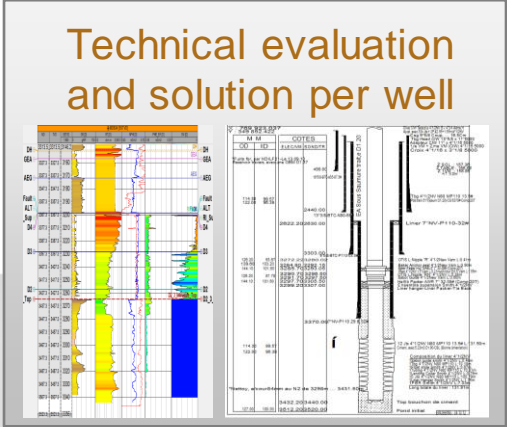
Funnel selection of candidates and candidate technical proposals Integration in Workover / Intervention



1 Step ONE Primary pool analysis



2 Step TWO Short-listed wells Proposals

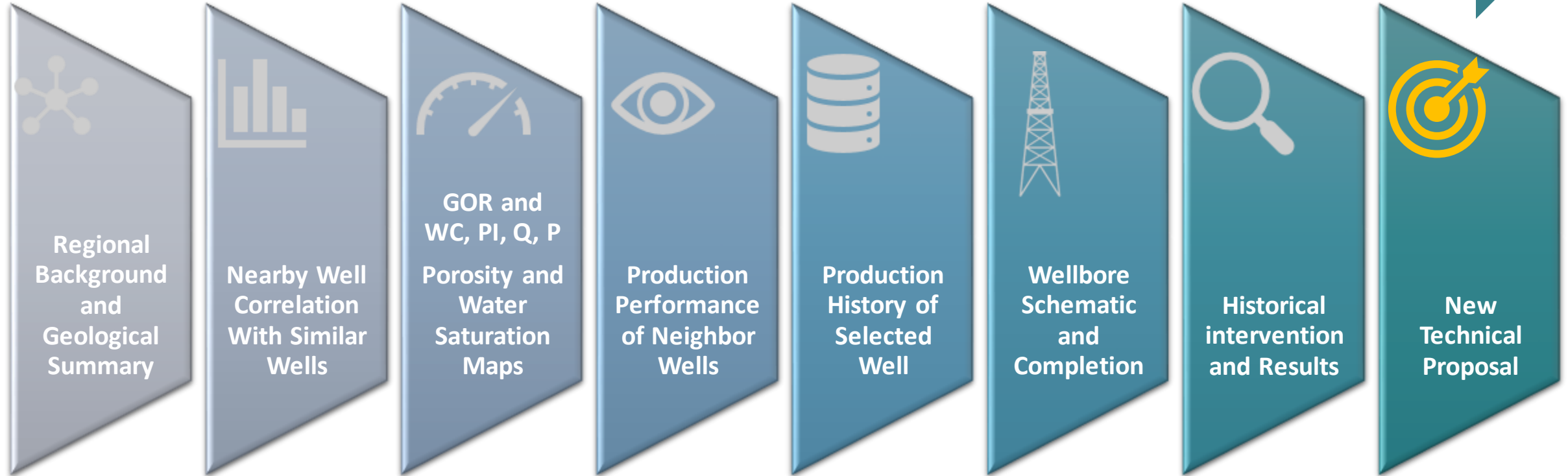




Well By Well Methodology



Well By Well Review Workflow





AGOCO SIWs Project Timeline & Execution





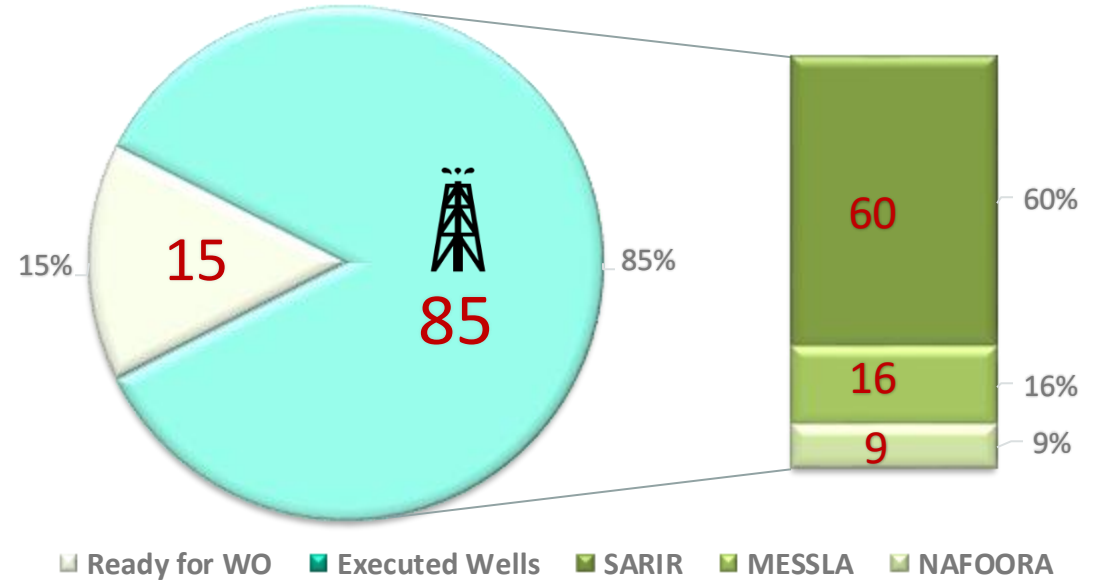
AGOCO Shut-in Wells Project - Accomplishments & Achievements YTD

AGOCO Shut-In Wells Project – (100 Wells with Exceptional Budget 2019-2020)

Executive Summary

- ✓ (100) Shut-in Wells Technical Proposals prepared and completed.
- ✓ (85) Wells already completed and operationally executed.
- ✓ (77) wells have been already tested after intervention and results into a significant increase of oil production

Execution To Date





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AGOCO SHUT-IN WELLS PROJECT RESULTS (PHASE-1)

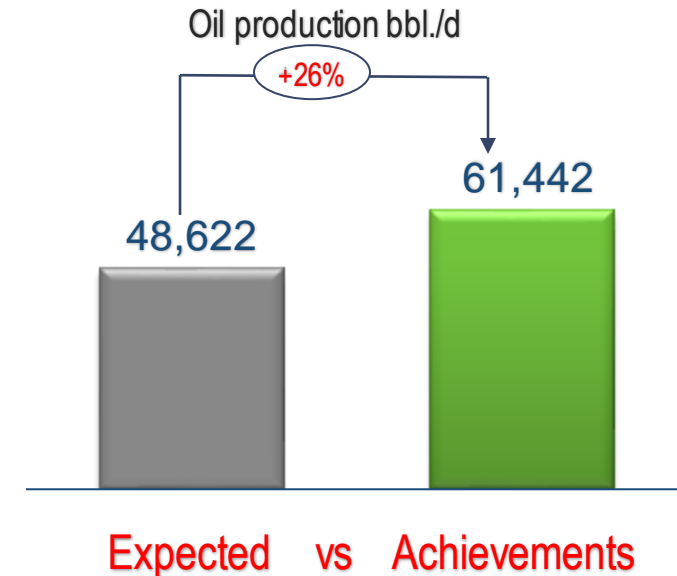


AGOCO Shut-in Wells Project - Results YTD

AGOCO Shut-In Wells (100 Wells) Project – (Exceptional Budget Development-Drilling 2019-2020)

- ✓ Oil Production Incremental Reached **61,442 BOPD**.
- ✓ Unwanted Water Production Reduced by **29,754 BOPD**.
- ✓ 3 seconded junior engineers from AGOCO part of APS Team.
- ✓ 1st Time Experience for AGOCO Engineers in Fields
- ✓ AGOCO Shut-in-Wells is FIRST project with Integrated Services Management approach in (Libya) for Production Enhancement.

Results To Date



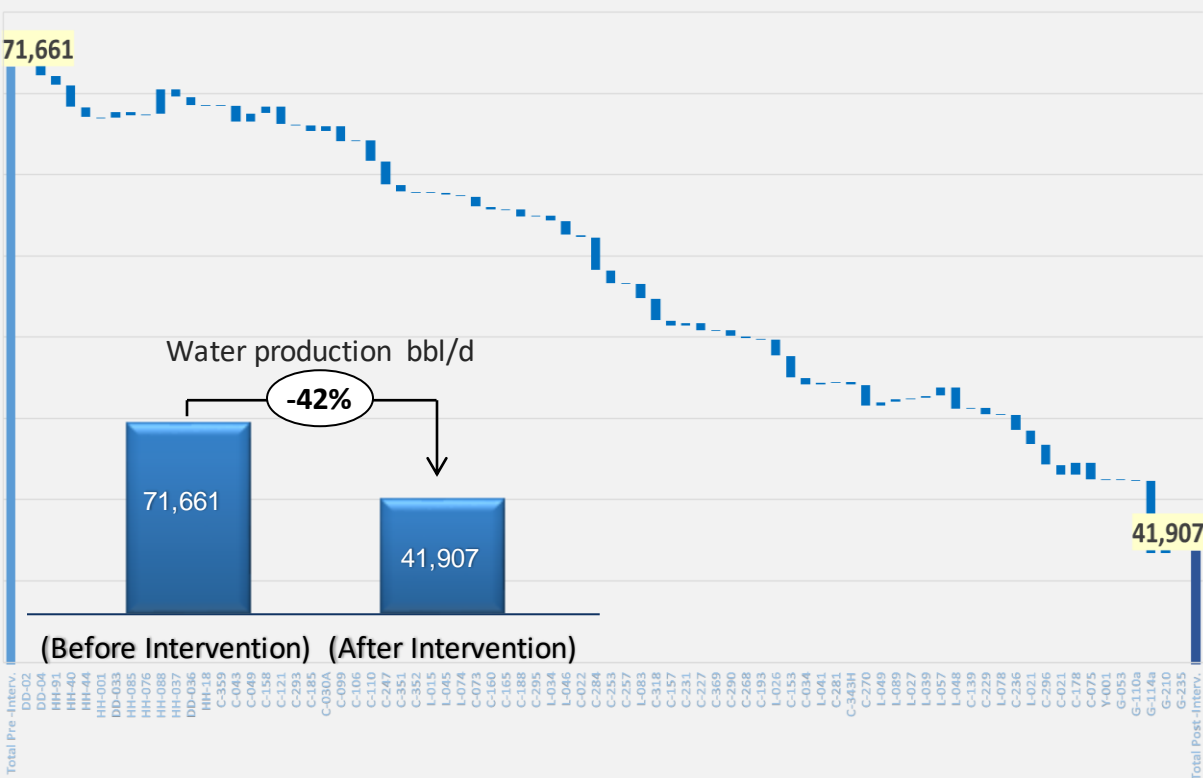
(Expected Production From 100 wells) (Actual Production)



AGOCO Shut-in Wells Project - Well by Well Production Test Results

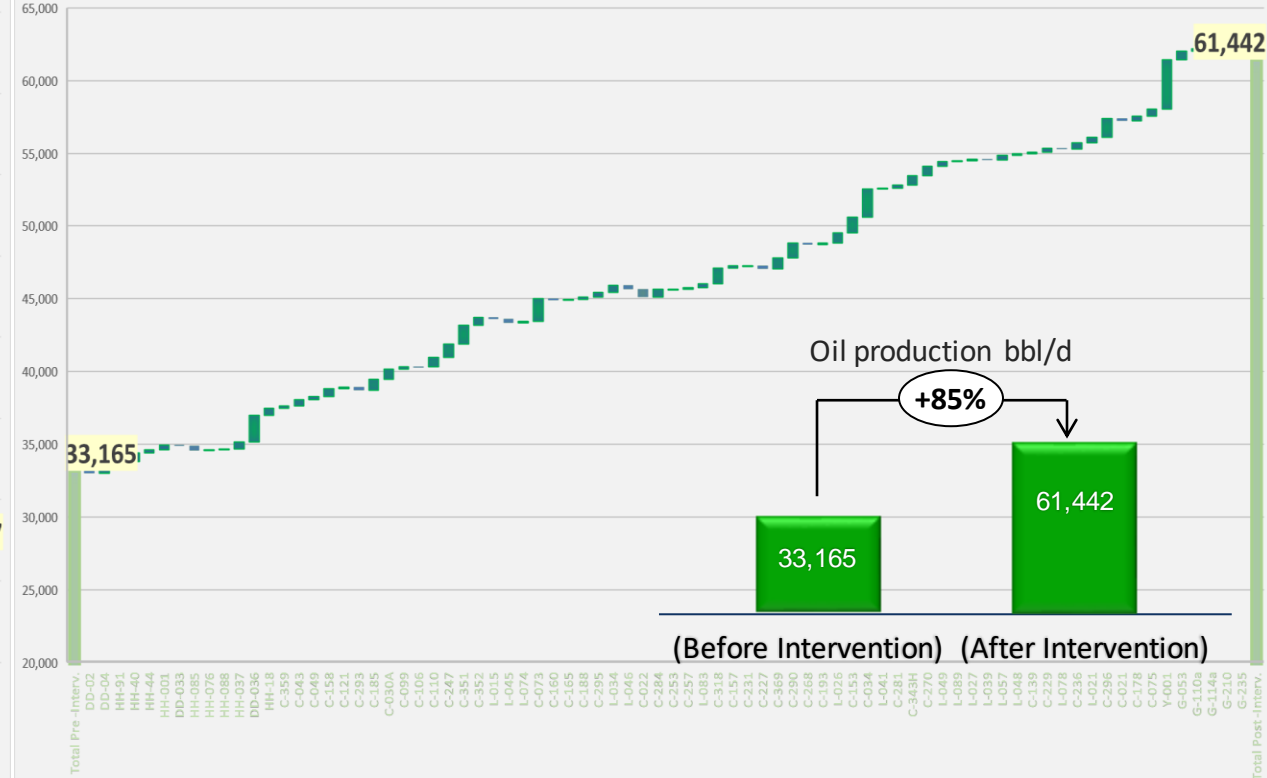
WATER REDUCTION RATES AFTER INTERVENTION PER WELL

■ Increase ■ Decrease ■ Total



OIL PRODUCTION INCREMENTAL AFTER INTERVENTION PER WELL

■ Increase ■ Decrease ■ Total



- Unwanted Water Production Reduced by 29,754 BWPD.

- Project Oil Production Reached 61,442 BOPD.



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Thank You