



# Bone Spring Allowable increase Proposal

Oil Conservation Division  
Case No. \_\_\_\_\_  
Exhibit No. 4

  
devon

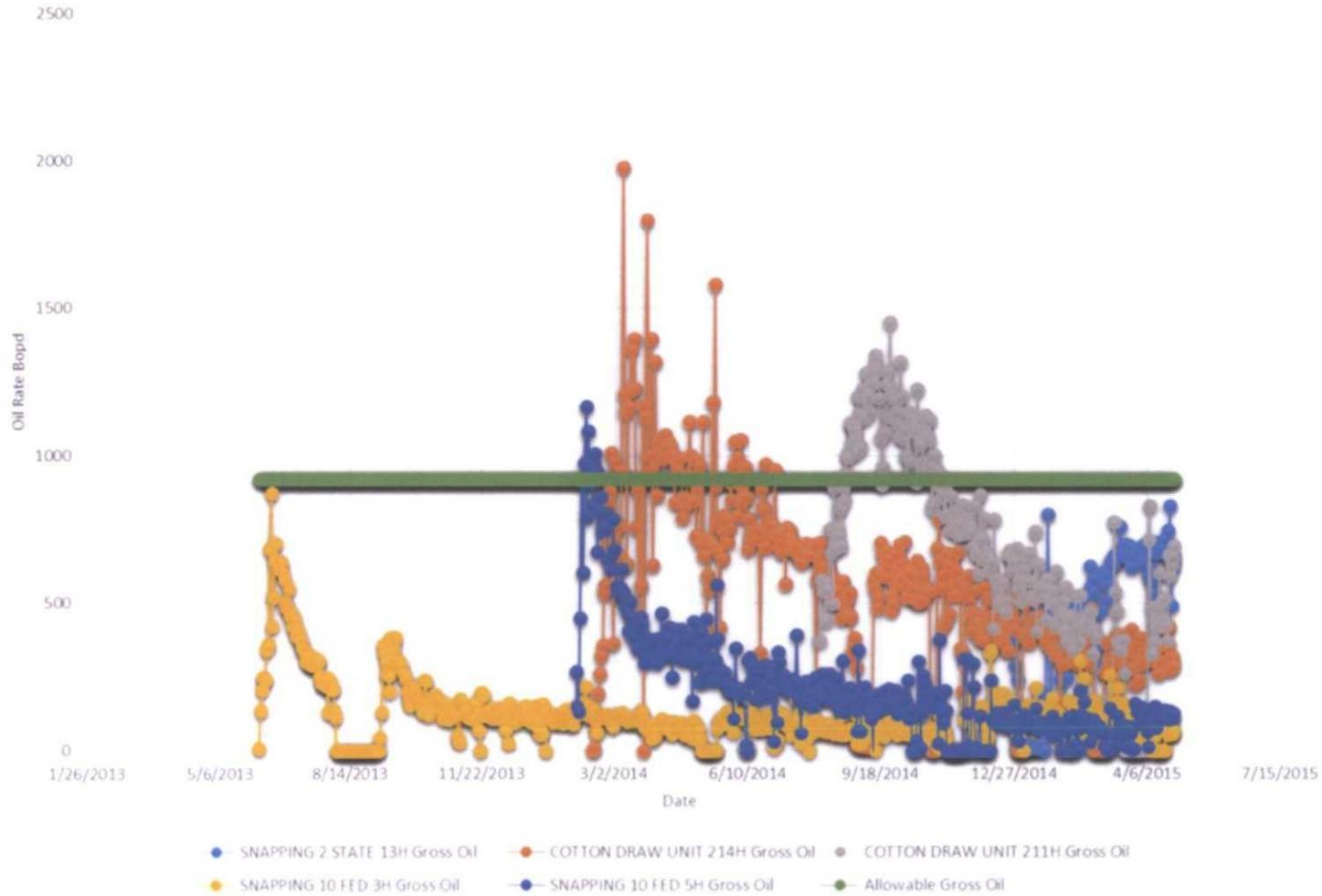
# Delaware Basin Downspacing Overview

## Objective -

- Optimize well spacing that maximize recovery and economics for the Bone Spring Sands
- Increase the actual allowable to increase the Net Present Value of the wells
- Implement pilot development to test concept

# Actual History in the Snapping Area

## Production History Profile - Snapping Area



# Fekete Harmony

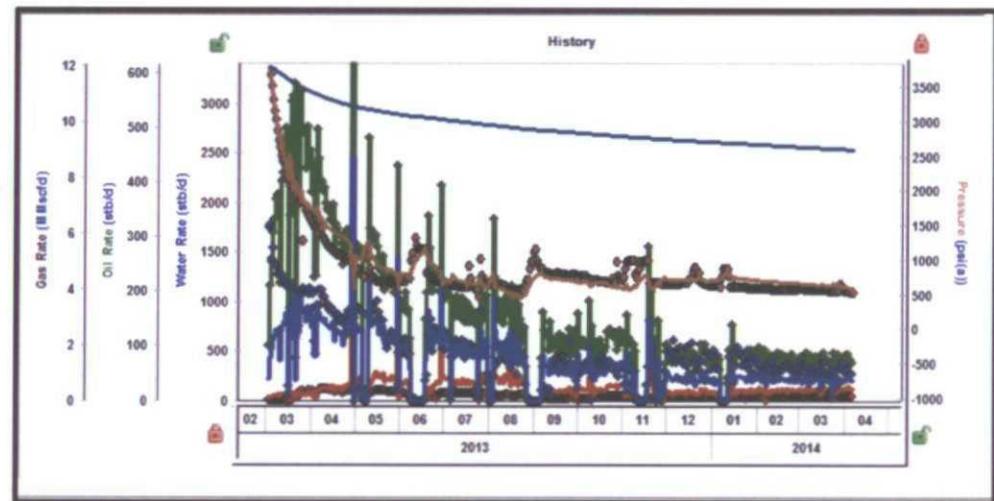
## Numerical Model Work Flow, Technical support

Disciplines	Inputs	Sources
<b>Geology</b>	TVD Net Pay Porosity Fluid Saturation Matrix Perm	Logs, Core
<b>Reservoir</b>	Res. Pressure Res. Temperature API FVF Viscosity Bubble Point Compressibility GOR	DFIT PVT
<b>Drilling &amp; Operation</b>	Deviation Survey Csg/Tbg Sizes Perfs Production Rates FBH Pressures	Wellview OFM

Fekete  
Harmony



## History Match



Use to make business decision regarding to:

- Reserves Forecast & Estimation
- Recovery Factor
- Field Development Scenario (Spacing, Facilities development, drilling Pattern scenarios)

# Economic Results table

## Peep cases

Wells	ROR %	NPV10 M\$	ROR group %	NPV10 group M\$	EUR/Well MBI	Res/section MBI
1	26.1	1621	26.1	1621	460	460
2	26.1	1621	26.1	3242	460	920
3	26.1	1621	26.1	4863	460	1380
4	26.1	1609	26.1	6436	447	1788
5	25.9	1530	25.9	7650	416	2080
6	25.3	1343	25.3	8058	375	2250
7	23.3	1021	23.3	7147	335	2345
8	20.3	700	20.3	5600	303	2424

# Technical Conclusions

- High remaining residual oil Saturation on current spacing; Need for an acceleration/Downspacing Program
- Optimal well density is 6 wells/section based on NPV10; 30-40% increase in total reserves
- Actual Pool max allowable = 230 Bopd /40ac ~ 920 Bopd (160 ac)
- Actual data production shows the need of the increase; Third Bone Spring and Second Bone Spring producing at the moment
- In addition to the history, with the 6 wells per section, we are expecting 1650 Bopd per well in a 107 ac spacing, just in Lower second bone spring
- We request an increase to 690 Bopd per 40 Acres ~ 2760 Bopd (160 ac), the equivalent of 1845 Bopd (107ac)