## STATE OF NEW MEXICO DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES OIL CONSERVATION DIVISION

APPLICATION OF DEVON ENERGY PRODUCTION COMPANY LP FOR A STANDARD HORIZONTAL SPACING AND PRORATION UNIT AND COMPULSORY POOLING, LEA COUNTY, NEW MEXICO

Case No. 16428

## AFFIDAVIT OF J. RUSSELL GOODIN

STATE OF OKLAHOMA	)	
	) ss.	
COUNTY OF OKLAHOMA	)	

- I, being duly sworn on oath, state the following:
- 1. I am over the age of 18, and I have personal knowledge of the matters stated herein.
- 2. I am employed as a petroleum geologist for Devon Energy Production Company, L.P. ("Devon"), and I am familiar with the subject application and the geology involved.
- 3. This affidavit is submitted in connection with the filing by Devon of the above-referenced compulsory pooling application pursuant to 19.15.4.12.A(1) NMAC.
- 4. I seek to be qualified by the Oil Conservation Division ("Division") as an expert petroleum geologist.
- 5. I hold a Bachelor's degree in Geology from Weber State University and a Master's degree in Geology from Simon Fraser University. I completed my education in 2008.
  - 6. I have been employed as a petroleum geologist with Devon since December of 2008.
- 7. **Exhibit A** is a Wolfcamp structure map. The unit being pooled is outlined by a red rectangle. Strata dip approximately 100' eastward across the Jayhawk sections. The apparent structural dip along the proposed Jayhawk wellbores is around 0°. No major structural hazards exist at this location.

- 8. **Exhibit A** identifies wells in the vicinity of the proposed well, with a cross-section line running from A to A'.
  - 9. **Exhibit A** shows that the structure dips down to the east.
- 10. **Exhibit B** is a Wolfcamp stratigraphic cross-section hung on the top of the Wolfcamp. The cross-section shows consistent target thickness in wells near the Jayhawk sections. The well logs on the cross-section give a representative sample of the upper Wolfcamp formation in the area and demonstrate reasonable well control. The target zone for the wells is the upper Wolfcamp as indicated by the blue line in Exhibit B. The target zone is continuous across the well unit.
- 11. **Exhibit C** is a gross isochore of the upper Wolfcamp formation. The map shows thickness for the "target interval" indicated in Exhibit B. The upper Wolfcamp is uniform across the proposed well unit.
  - 12. I conclude from the attached exhibits that:
    - a. The horizontal spacing and proration unit is justified from a geologic standpoint.
    - b. There are no structural impediments or faulting that will interfere with horizontal development.
    - c. Each quarter-quarter section in the unit will contribute more or less equally to production.
- 13. The preferred well orientation in this area is north-south. This is because the inferred orientation of the maximum horizontal stress is roughly east.
- 14. The granting of this Application is in the interests of conservation, the prevention of waste, and the protection of correlative rights.
  - 15. The foregoing is correct and complete to the best of my knowledge and belief.

## FURTHER AFFIANT SAYETH NAUGHT

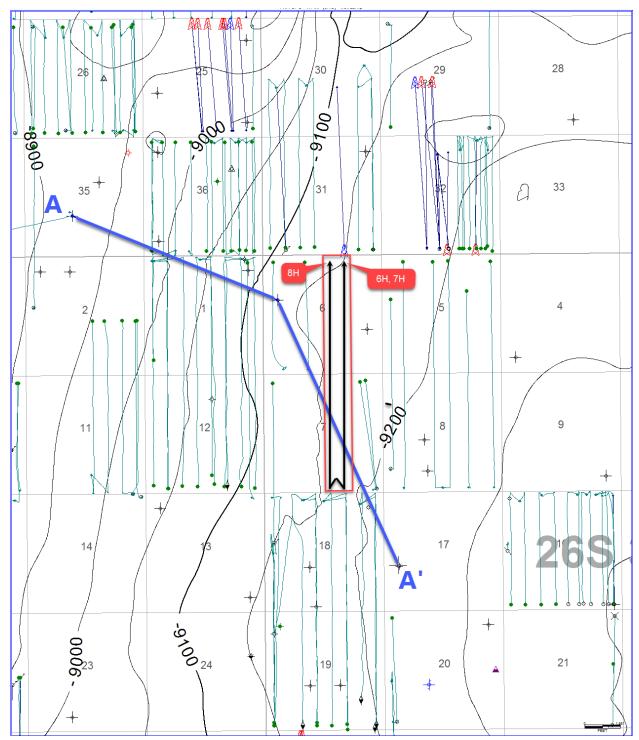
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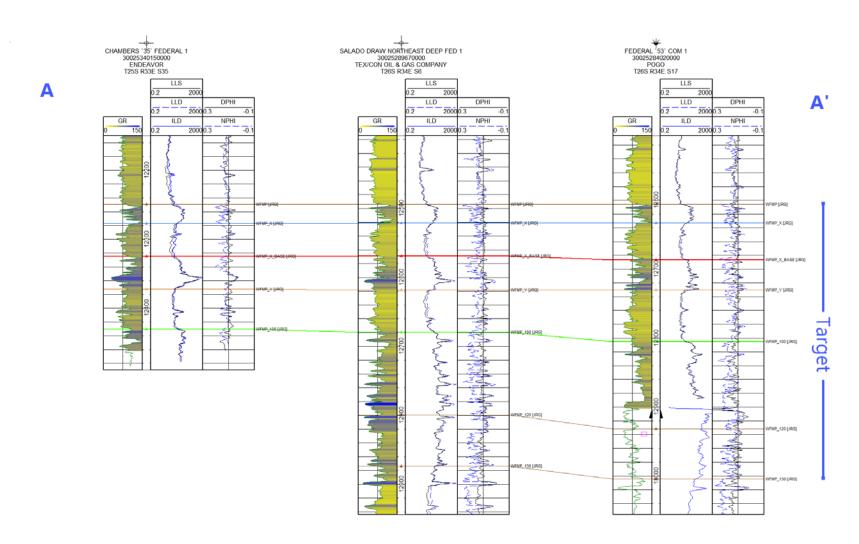
Subscribed to and sworn before me this 1st day of September, 2018.

# 11005642 # 11005642 # 2006/22/19

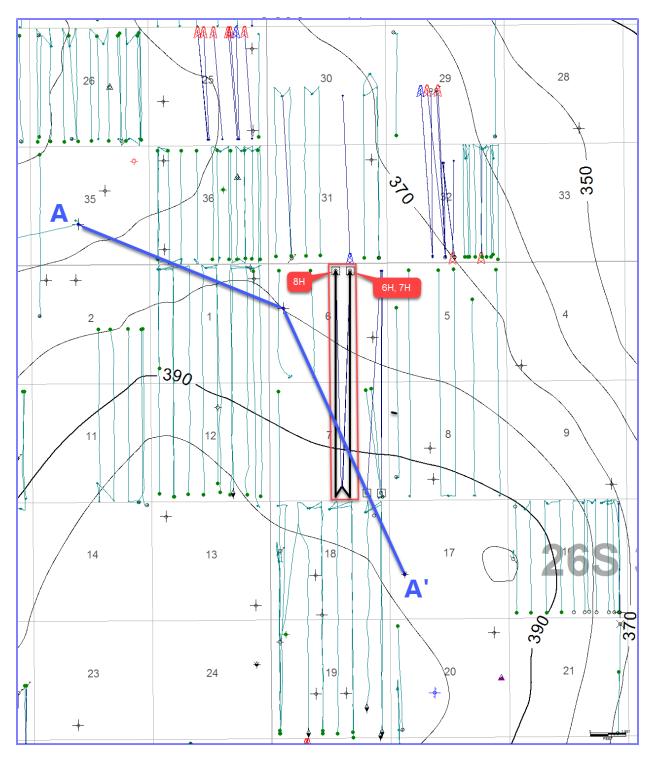
Notary Public



**Exhibit A**: Wolfcamp structure map. Contour interval = 50'. Cross-section indicated by blue line labeled A to A'. 1. The red rectangle indicates the unit being pooled.



**Exhibit B**: Cross-section A to A'. Stratigraphic cross-section hung on Wolfcamp top. Target interval indicated by blue line on right side of figure.



**Exhibit C**: Isochore thickness of target interval indicated on cross-section (Exhibit 2). Cross-section indicated by blue line labeled A to A'. The red rectangle indicates the unit being pooled.