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. 16429

AFFIDAVIT OF SPENCER ROLFS

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 obtained from California State University-Fresno, and a Master's degree in Geology obtained from the Colorado School of Mines. I completed my education in 2015.

6. I have been employed as a petroleum geologist with Devon since September of 2015.

7. **Exhibit A** is a 3rd Bone Spring Base 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 3rd Bone Spring stratigraphic cross-section hung on the base of the 3rd Bone Spring Sand. 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 3rd Bone Spring Sand formation in the area and demonstrate reasonable well control. The target zone for the wells is the 3rd Bone Spring Sand 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 3rd Bone Spring Sand formation. The map shows thickness for the "target interval" indicated in Exhibit B. The 3rd Bone Spring Sand 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

Spencer Rolfs

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

RACHEL GERLACH NOTARY # 11005642 EXP. 06/22/19 PUBLIC STATE OF OKLAHOMA

Rachel Gerlach
Notary Public

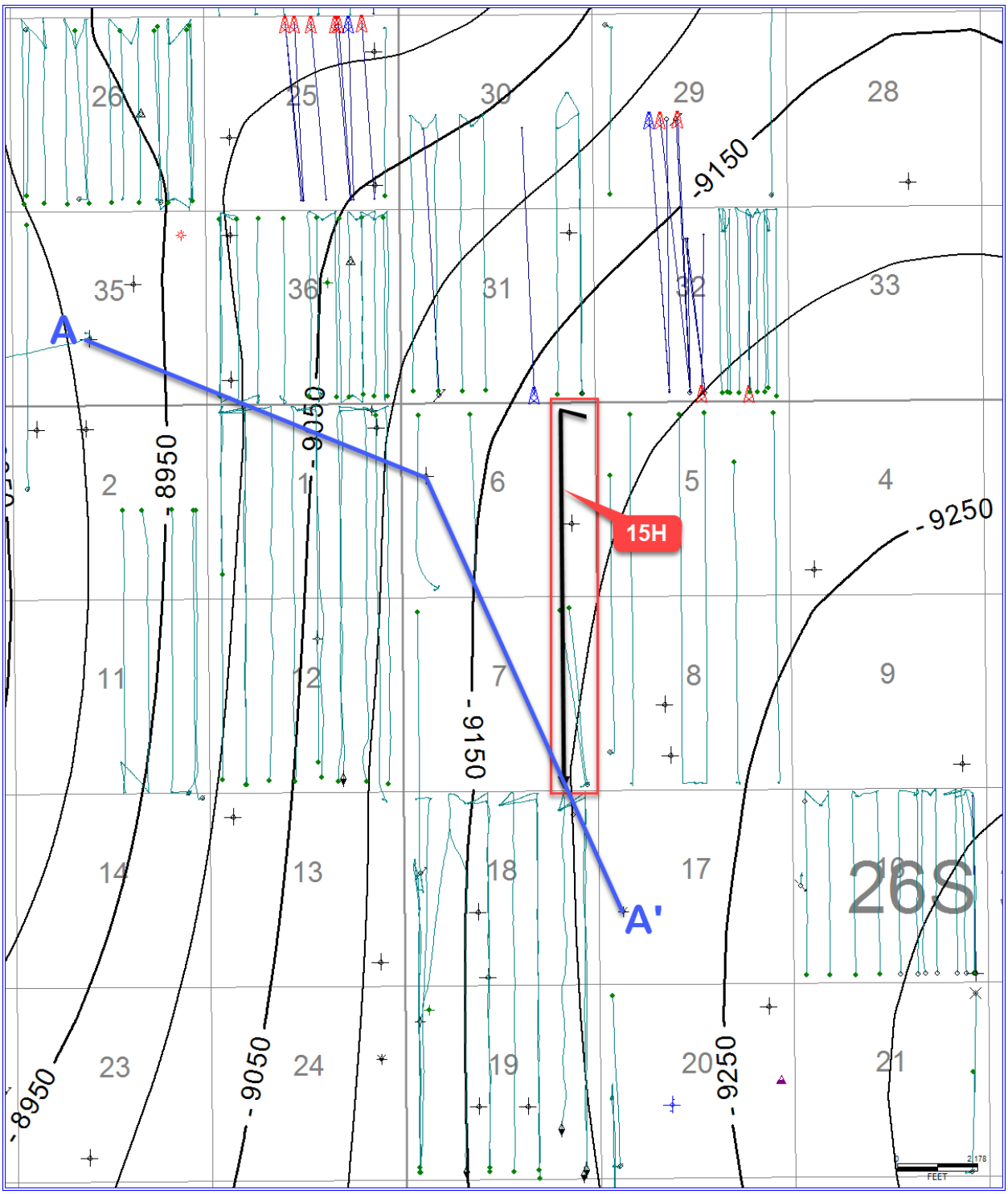

***Exhibit A**: 3rd Bone Spring Base structure map. Contour interval = 50'. Cross-section indicated by blue line labeled A to A'. Red rectangle indicates unit being pooled.*

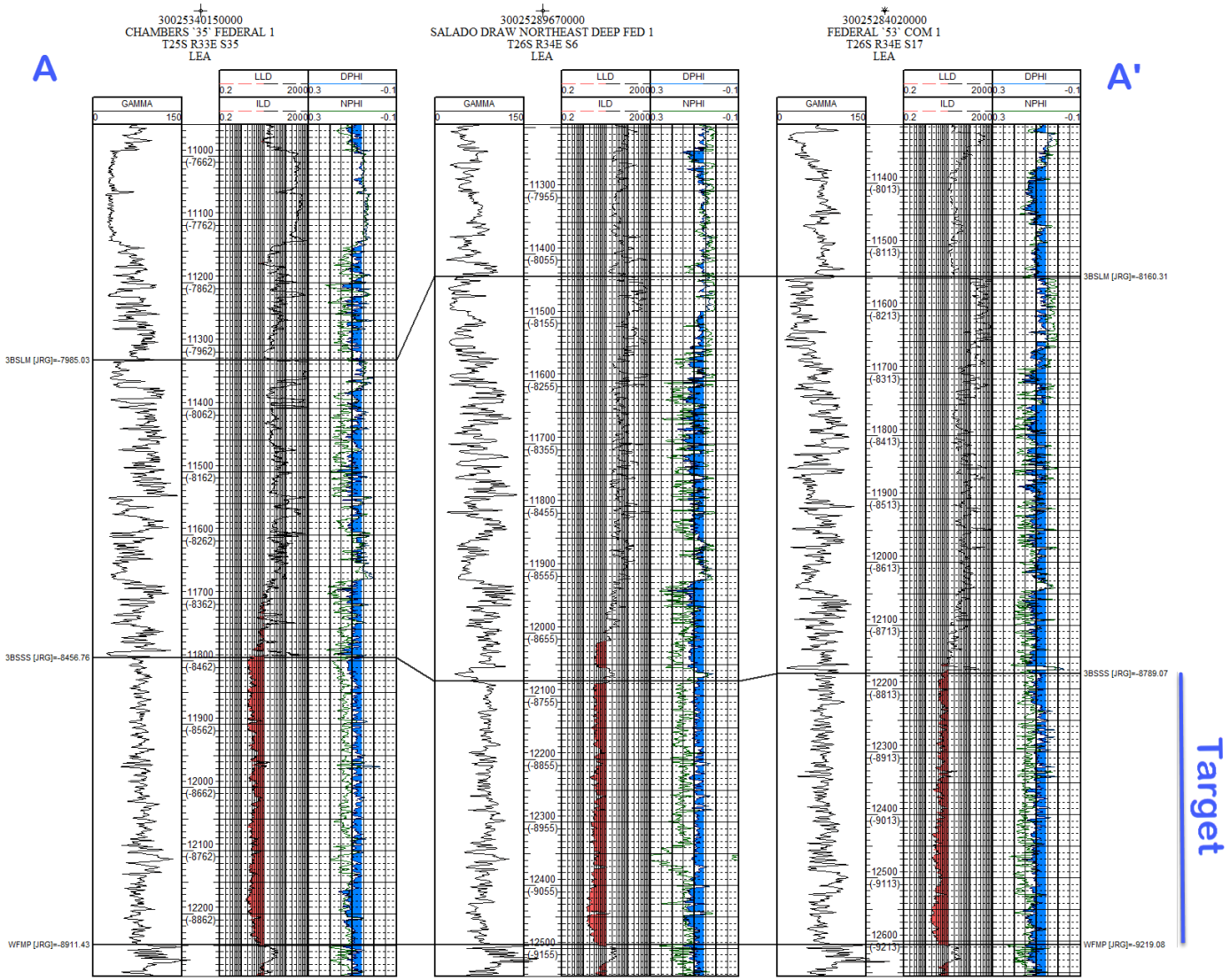

***Exhibit B**: Cross-section A to A'. Stratigraphic cross-section hung on Wolfcamp top. Target interval indicated by blue line on right side of figure.*

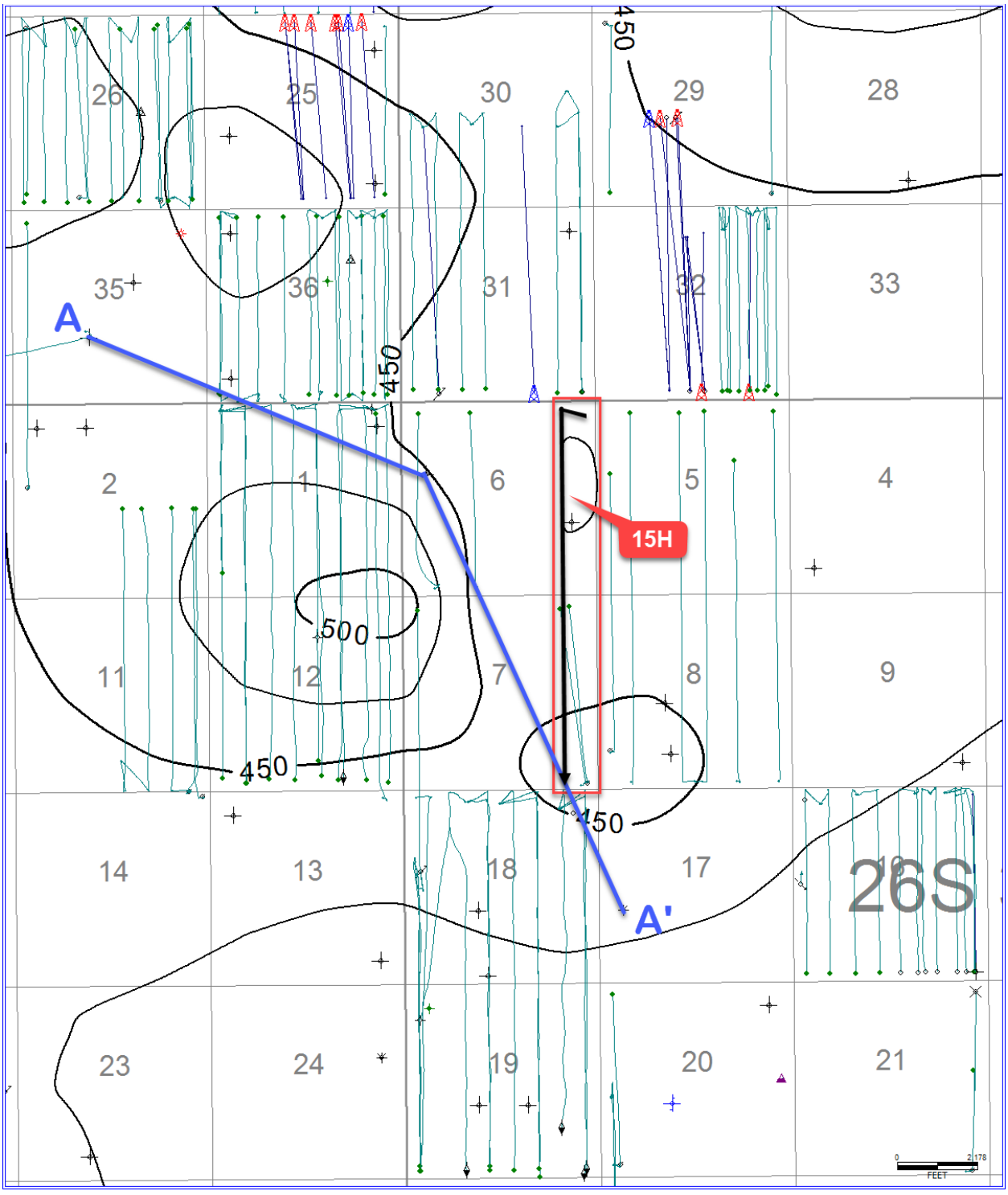

***Exhibit C**: Isochore thickness of target interval indicated on cross-section (Exhibit 2). Cross-section indicated by blue line labeled A to A'. Red rectangle indicates unit being pooled.*