

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

**APPLICATION OF COG OPERATING
LLC FOR COMPULSORY POOLING,
LEA COUNTY, NEW MEXICO**

Case No. 20863

**SELF-AFFIRMED STATEMENT OF
CANDICE PETTIJOHN**

1. I am over 18 years of age and am competent to provide this Self-Affirmed Statement. I have personal knowledge of the matters addressed herein.
2. I am a geologist at COG Operating, LLC ("COG"). I am familiar with the geological matters that pertain to COG's application.
3. Attached as Exhibit A is a map that shows the proposed location of the Squints Federal Com #7H and #8H wells in relation to other Bone Spring wells drilled in the vicinity. The preference is for stand-up wells (north to south or south to north), and the completed wells in the area (recent completions) apparently are commercial.
4. Attached as Exhibit B is a structure map of the Second Bone Spring Sand, which is the target zone for the proposed wells.
5. Attached as Exhibit C is a cross section map for the Squints Federal Com #7H and #8H wells.
6. Attached as Exhibit D is a north to south cross section. The well logs on the cross section provide a representative sample of the Bone Spring formation in the area. The target zone for the proposed well is continuous across the HSU.
7. Based on the information contained in Exhibits A, B, C, and D, I am able to conclude that:

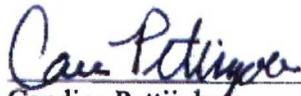
Case No. 20863
COG OPERATING
Exhibit 2

- a) The HSU is justified from a geologic standpoint;
- b) There is no faulting or other geologic impediment that could adversely affect the drilling of the proposed well; and
- c) Each quarter-quarter section in the HSU will contribute more or less equally to production.

8. In my opinion, the granting of COG's application will serve the interests of conservation and the prevention of waste.

9. Exhibits A through D were either prepared by me or compiled from company records.

10. I understand that this Self-Affirmed Statement will be used as written testimony in this case. I affirm that my testimony in paragraphs 1 through 9 above is true and correct and is made under penalty of perjury under the laws of the State of New Mexico. My testimony is made as of the date handwritten next to my signature below.


Candice Pettijohn

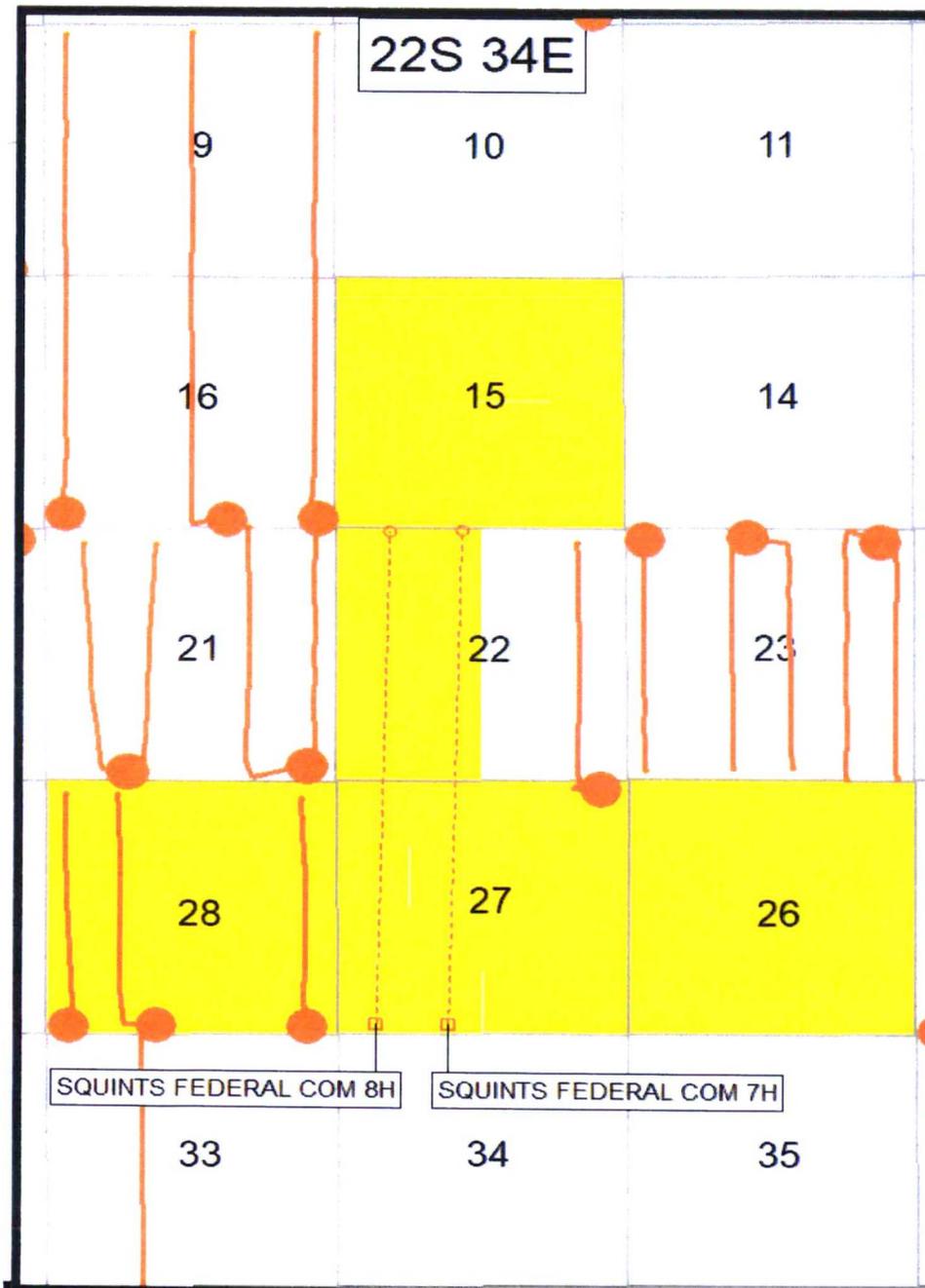
11/13/19
Date

Ex. A

SQUINTS FEDERAL COM PROJECT

Squints Federal Com 7H & 8H

Section 27 T22S-R34E



Map Legend

SHL □

COG – SBSG Horizontal Location

BHL ○

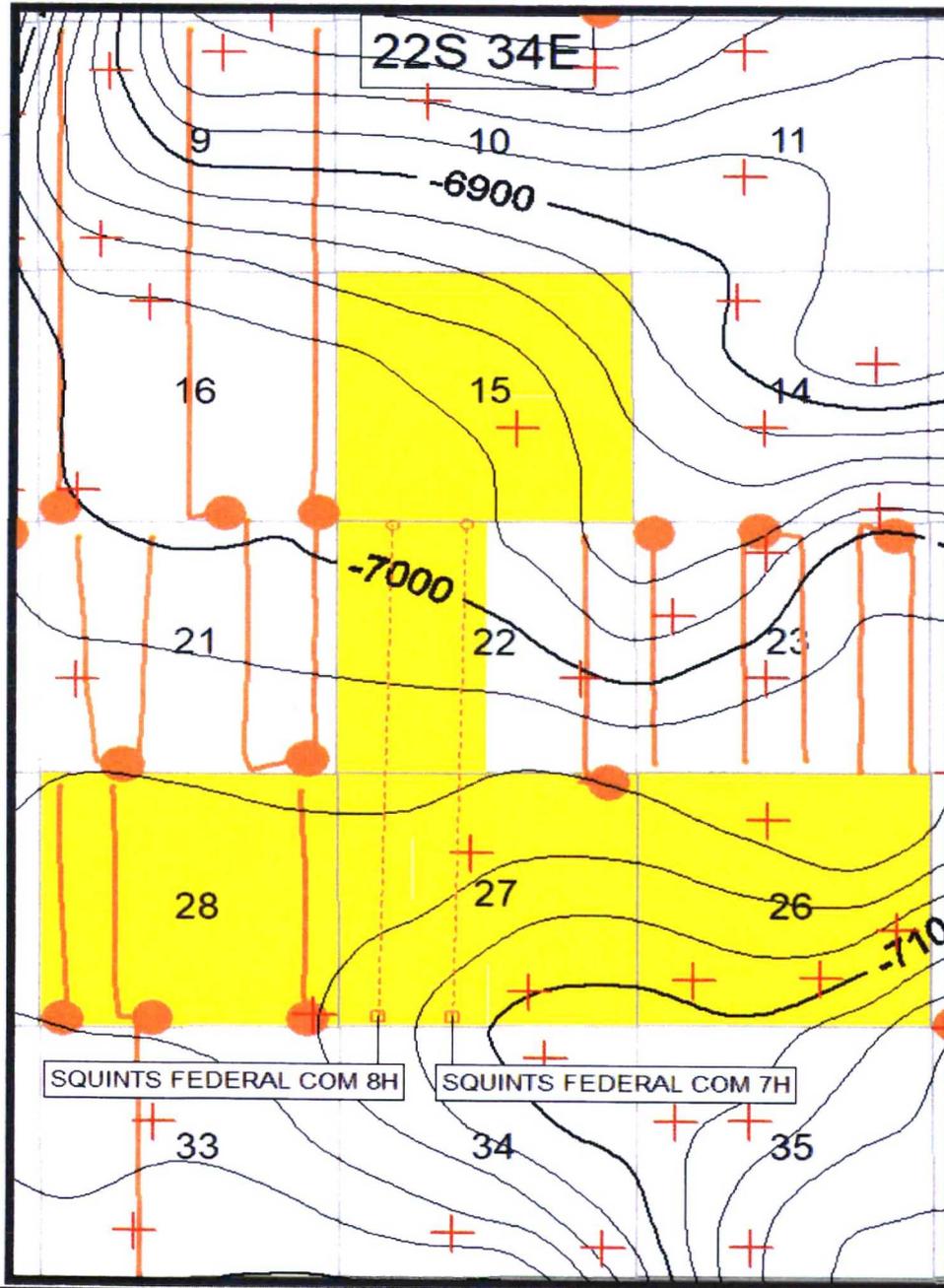
Producing SBSG Wells



COG Acreage

Ex. B

Second Bone Spring Sand Base Subsea Structure Map
 Squints Federal Com 7H & 8H
 Section 27 T22S-R34E



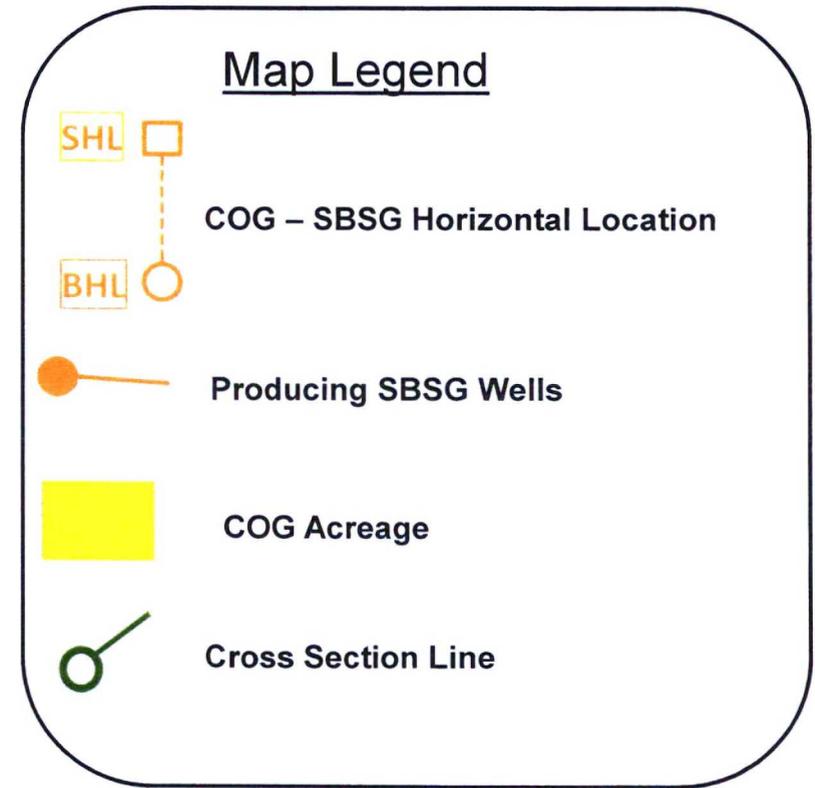
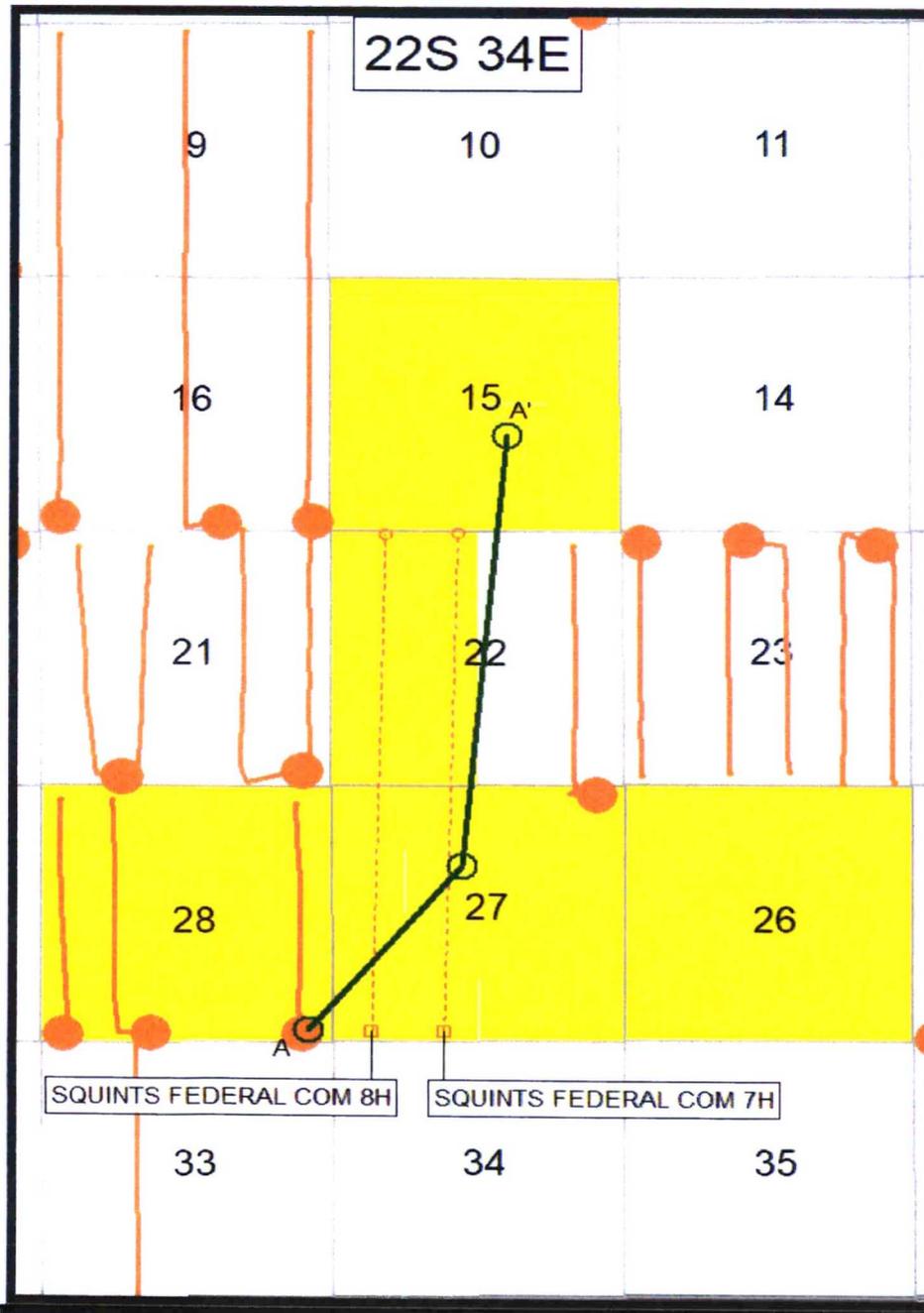
Map Legend

-   COG – SBSG Horizontal Location
-  Producing SBSG Wells
-  COG Acreage
-  Data Point
-  WFMP Structure
CI: 25'

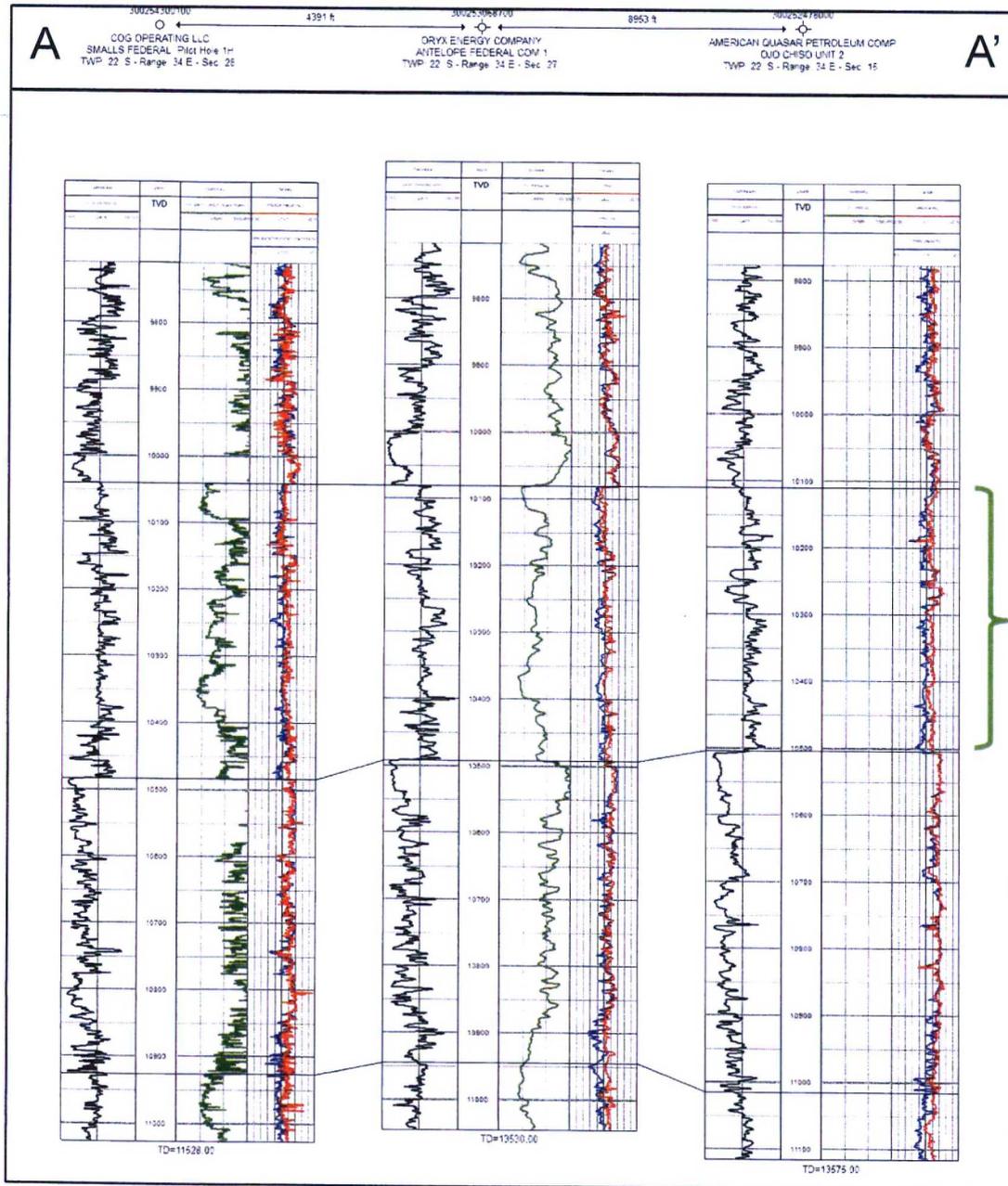
Ex. C

CROSS SECTION Map

Squints Federal Com 7H & 8H
Section 27 T22S-R34E



Ex. D



Stratigraphic Cross Section A – A'