

Additional Information

Affirmation Statement and Geologic
Cross Section 4/19/21



Steve Drake
V.P. Geology and Reservoir Engineering
Goodnight Midstream, LLC
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Dallas, Texas 75206

RE: Goodnight Midstream, LLC Pedro SWD #1 well permit

Lot P, Section 28, Township 21S Range 36E
Lea County, New Mexico

Goodnight Midstream conducted a hydrogeologic investigation related to the proposed injection well. The scope of the investigation was to determine if there is any hydrologic connection between the proposed injection interval and any sources of underground drinking water.

Goodnight geologist performed an analysis of subsurface well log data. It is our conclusion that there is no evidence of faulting in the data we evaluated at the depths that are being considered. There are small scale flexures which may or may not be associated with small scale faults. None of these flexures extend above the Wolfcamp unconformity and are not seen in the Leonard intervals.

Goodnight acquired and evaluated 3D seismic covering the lands that this saltwater disposal well is located upon. This data shows the geologic setting in the area. No faults are seen in the Artesia Group, San Andres, Glorieta, or Leonard series. The San Andres contains small scale flexures and changes in seismic velocity that may indicate karsting. These flexures and velocity anomalies are being used to target disposal reservoir opportunities. The Grayburg thickens over the San Andres sag. There is also a thickening of the Yates relative to the low in the San Andres. These stratigraphic changes do not indicate the presence of faulting and there is no communication between these intervals.

Water has been disposed into the San Andres in this area since 1966. There is a good record of pressure separation. Production from the Artesia group has proceeded without interruption or encroachment from San Andres disposal for more than 50 years. Containment and isolation from the hydrocarbon intervals would then also be isolated from any sources of fresh water above.

We see no evidence of faulting that would extend to or form a connection between the injection zone and any underground sources of drinking water.


Steve Drake
V.P. Geology and Reservoir Engineering
Goodnight Midstream, LLC


Date

Goodnight Midstream Ted 28-1
30-025-44386 F 28 215 36E
KB: 3626 7/31/2018 TD: 7910

Penroc Lockhart B 28 #004
30-025-04812 M 28 215 36E
KB: 3624 2/24/1942 TD: 3909

OXY USA State D #003
30-025-04865 A 32 215 36E
KB: 3605 1/27/1936 TD: 3900

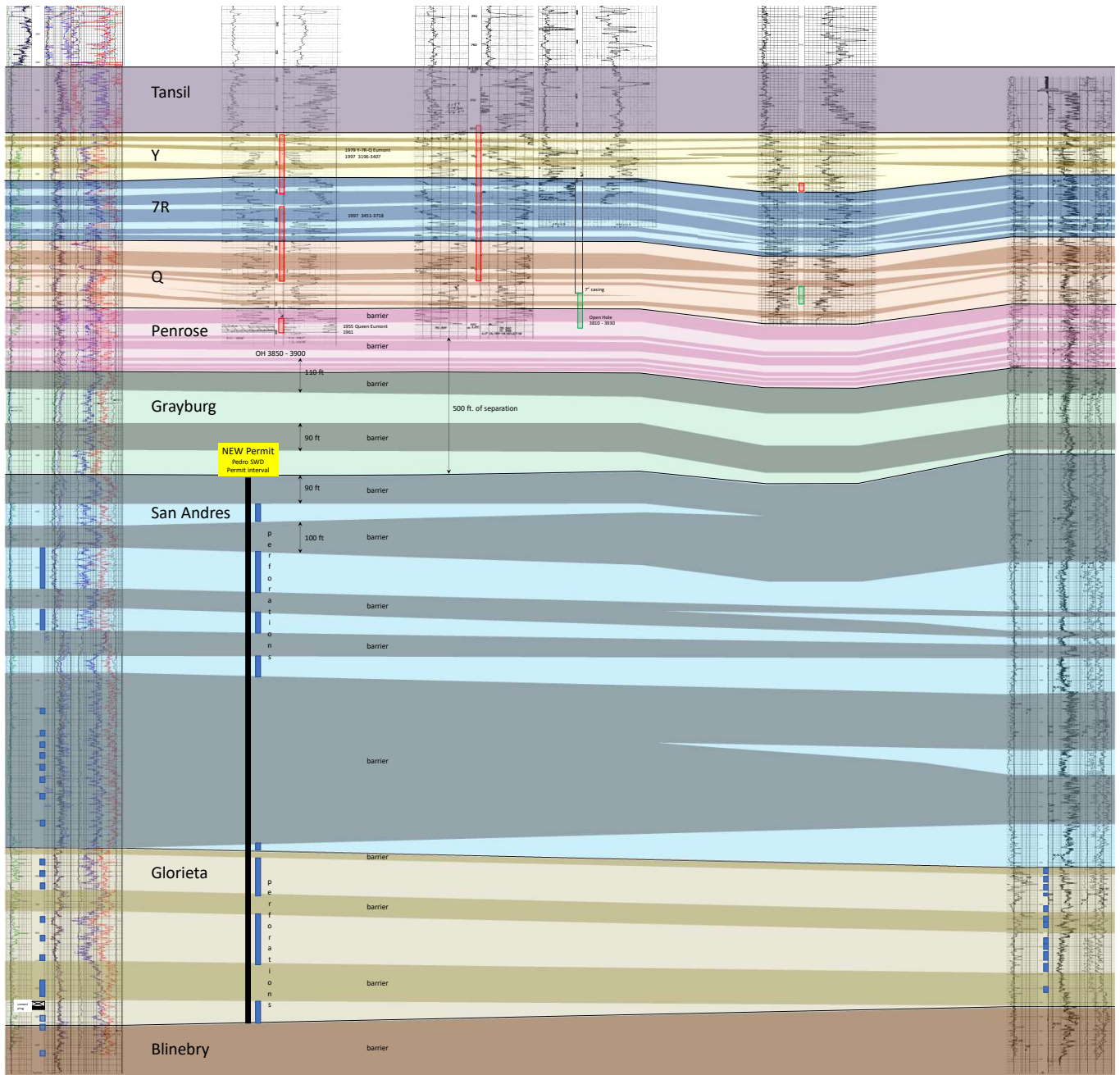
OXY USA State D #004
30-025-04866 H 32 215 36E
KB: 3598 8/12/1936 TD: 3941

Chevron P&A JF Janda NCT B#003
30-025-04875 P 32 215 36E
KB: 3611 5/1/1957 TD: 3875

Goodnight Midstream Robinson
30-025-46397 F 4 225 36E
KB: 3604 11/26/2019 TD: 6602

SWD

SWD



Goodnight Midstream
Pedro SWD
Eunice Field Area P 28 215 36E
Lea County, New Mexico
December 2020