Submit 1 Copy To Appropriate District Office
District I – (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II – (575) 748-1283
811 S. First St., Artesia, NM 88210
District III – (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV – (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
Revised July 18, 2013

WELL API NO. 30-025-51764
5. Indicate Type of Lease STATE ☐ FEE ■
6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name: WILDRYE FEE SWD
1. Type of Well: Oil Well ☐ Gas Well ☐ Other ■ SALTWATER DISPOSAL
8. Well Number: 1
2. Name of Operator: Ranger Water Midstream, LLC
9. OGRID Number: 333197
3. Address of Operator: 1008 Southview Circle, Center, Texas 75935
10. Pool name or Wildcat: SWD; DEVONIAN-SILURIAN
4. Well Location
Unit Letter A : 410 feet from the NORTH line and 240 feet from the EAST line
Section 20 Township 19S Range 35E NMPM County LEA
11. Elevation *(Show whether DR, RKB, RT, GR, etc.)* 3,797' (GR)

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	☐	PLUG AND ABANDON	☐	REMEDIAL WORK	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPNS.	☐	P AND A	☐
PULL OR ALTER CASING	☐	MULTIPLE COMPL	☐	CASING/CEMENT JOB	☐		
DOWNHOLE COMMINGLE	☐						
CLOSED-LOOP SYSTEM	☐						
OTHER:	☐			OTHER:		Step-Rate Test Report	■

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

WILDRYE FEE SWD WELL #1 (API: 30-025-51764) -- UIC PERMIT # SWD-2369
SUBSEQUENT REPORT OF STEP-RATE INJECTION TESTING

On behalf of Ranger Water Midstream, LLC (Ranger), we (Geolex, Inc.) are providing this subsequent report of step-rate injection testing (SRT) activities, which were completed on April 14, 2025 for the existing Wildrye SWD #1 well (API: 30-025-51764). The results of these testing activities, are summarized in this submittal in the attached figures and data displays, which demonstrate that testing activities were completed with no indication of formation breakdown pressure being exceeded and within the limits of the permitted maximum allowable operating pressure of 2,810 psig. Furthermore, bottom-hole pressures achieved while testing fall significantly short of reaching anticipated formation breakdown pressure, as determined through analysis of dipole sonic log data and fracture pressure determination via Eaton's Method.

Step rate injection testing activities were completed utilizing freshwater test fluid, which was injected into the Wildrye SWD well at progressively increasing flow rates, from approximately three (3) barrels per minute (bpm) to 42 barrels per minute. In total, testing activities consisted of 14 injection stages, each of which, increased flow rate by approximately three (3) bpm. The maximum surface injection pressure observed during testing occurred in Stage 14 where testing activities reached a flow rate of approximately 41.8 bpm at an injection pressure of approximately 2,287 psig.

Figures 1 through 3 include relevant SRT data and illustrate the results of testing activities. These include injection flow rate and pressure data trends (Figure 1) and cross plots showing the relationship between injection flow rate and

injection pressure (Figure 2, which illustrates surface pressure and calculated bottom-hole pressure). As demonstrated by these results, there is no indication that the Siluro-Devonian fracture pressure, or formation breakdown pressure, was reached or exceeded under these test conditions, which attained a maximum injection flow rate of approximately 41.8 bpm.

To further confirm the results of well testing, which indicate the formation fracture pressure was not reached, wireline dipole sonic log data from local offsetting wells were utilized to empirically determine fracture pressure of the Siluro-Devonian, via Eaton's method (Figure 3). Based on this method, a minimum pressure gradient of 0.676 psi/ft. would be required to fracture strata within the Siluro-Devonian. In contrast, injection testing for the Wildrye SWD #1 well only reached an estimated maximum down-hole pressure gradient of approximately 0.50 psi/ft., owing to the large 7-inch and 5.5-inch tapered injection string utilized in its construction (see well schematic in Figure 4), which significantly reduces wellbore friction and allows for operation of the well at lower injection pressures than alternative well designs. As shown by this comparison, SRT activities for the Wildrye SWD #1 well achieved only approximately 74% of the down-hole pressure expected to be required to induce formation fracture.

In summary, step-rate injection testing for the Wildrye SWD #1 well included injection at progressively increasing flow rates, from approximately 3 to 42 bpm, with no indication of formation breakdown. Furthermore, complimentary methods for determining fracture pressure via offset well data (i.e., Eaton's Method), confirm the results of Wildrye SWD injection testing, and suggest that testing activities reached only 74% of the down-hole pressure required to induce formation fracture. Lastly, all testing activities were performed within the limits of the currently approved MAOP (i.e., 2,810 psig). As such, the results and analysis of Wildrye SWD #1 injection testing confirm the approved injection volume and operating pressure conditions authorized by NMOCD Order SWD-2369.

Spud Date:	September 4, 2024	Rig Release Date:	November 10, 2024

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE _____ TITLE Consultant to Ranger Water DATE 5/7/2025

Type or print name David A. White, P.G. E-mail address: dwhite@geolex.com PHONE: 505-842-8000

For State Use Only

APPROVED BY: _____ TITLE _____ DATE _____

Conditions of Approval (if any):

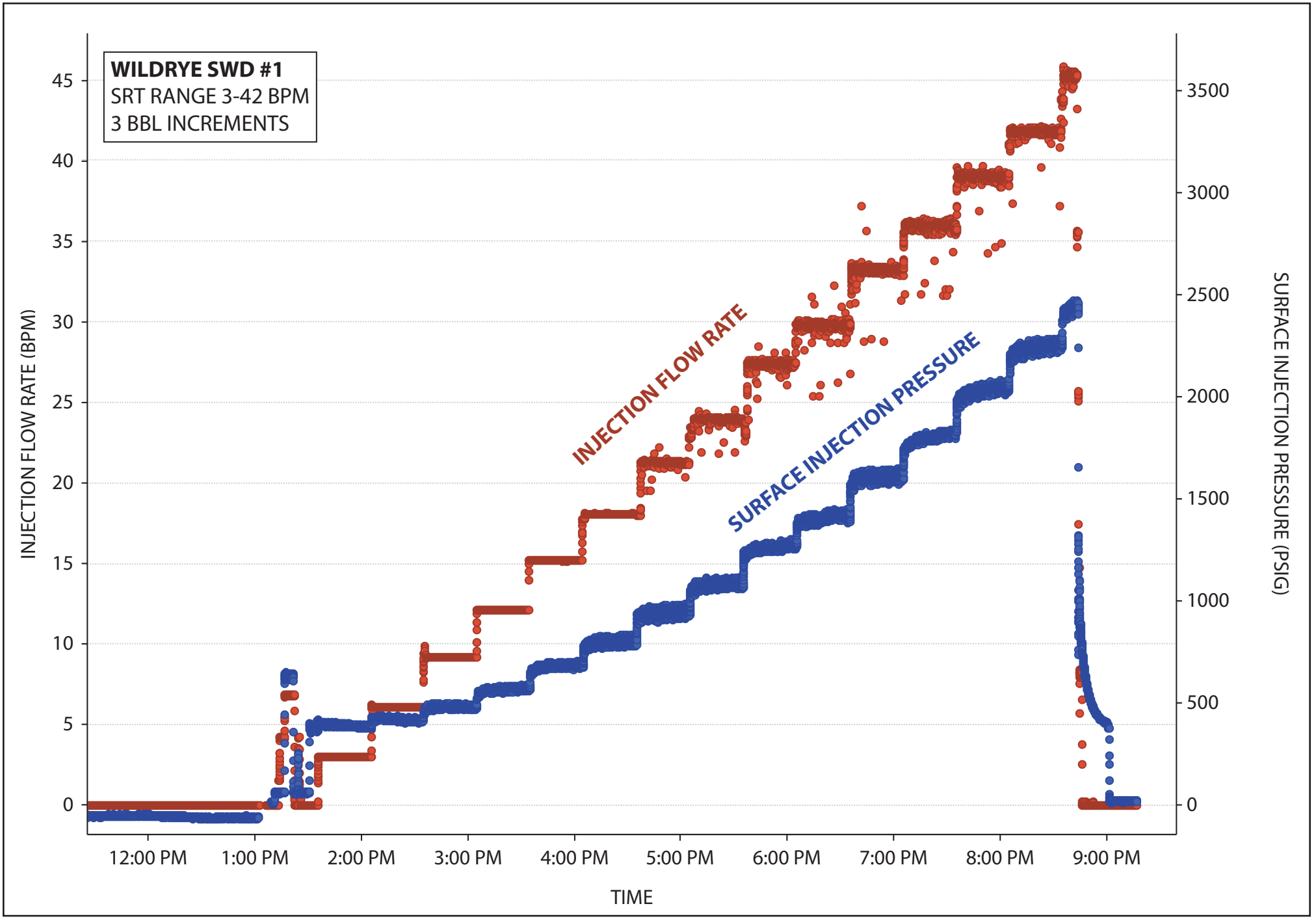
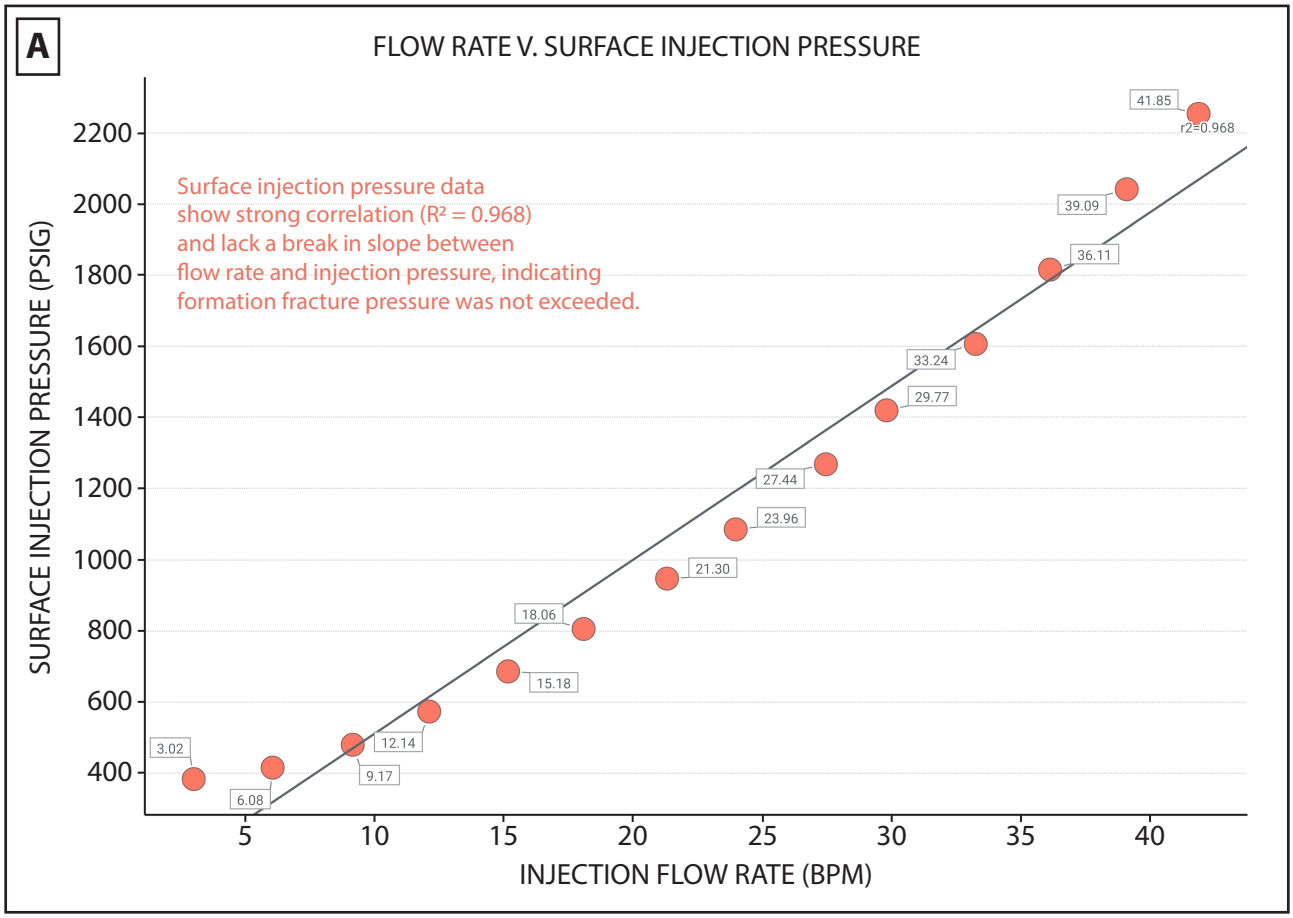


Figure 1. Surface injection pressure (psig) and rate (bbls/min) plotted against time for the step-rate injection test (SRT) of the Wildrye SWD #1 well. The maximum pressure achieved was approximately 2,287 psig at an injection rate of 41.8 bpm.



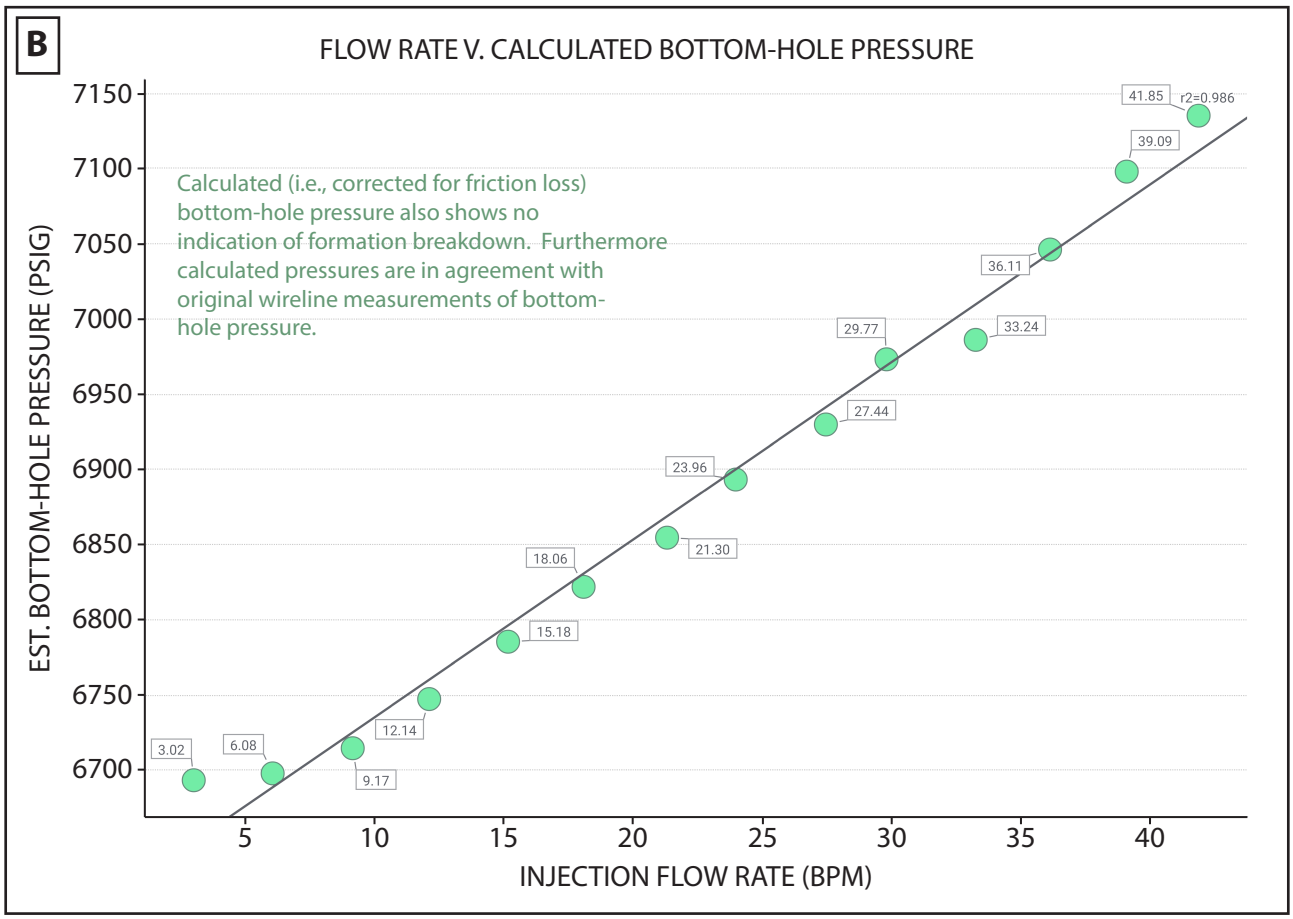


Figure 2. Cross plots of injection flow rate versus surface injection pressure (Panel A) and calculated bottom-hole pressure (Panel B), which demonstrate that Wildrye SWD #1 step-rate injection test activities did not reach formation fracture pressure of the Siluro-Devonian

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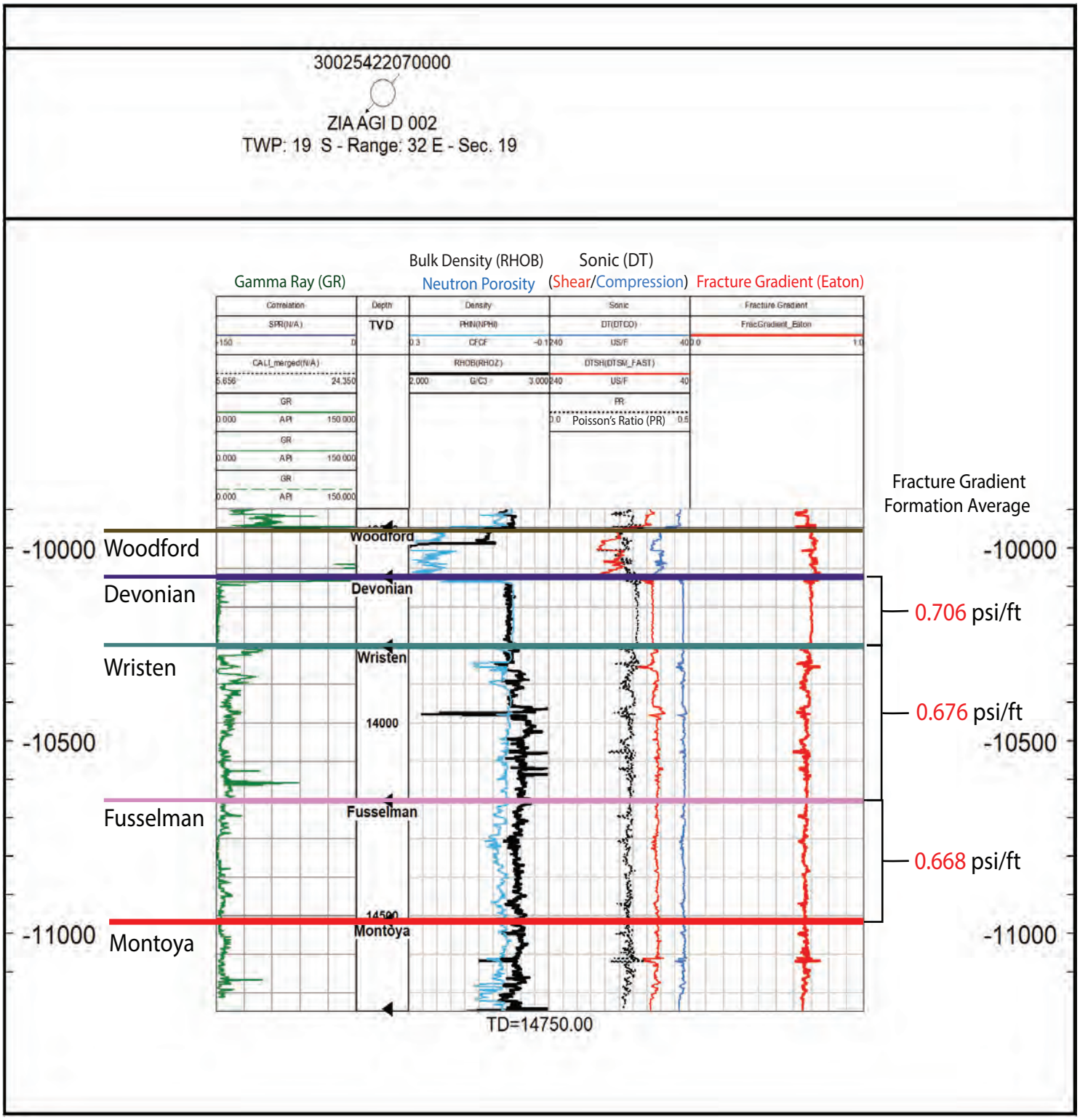

Figure 3. Siluro-Devonian fracture pressure gradient calculated from the offset Zia AGI D#2 well (red trace) utilizing publicly available sonic dipole wireline data. Average fracture gradient estimates range from 0.676 to 0.706 psi/ft., for Devonian through Fusselman strata. During Wildrye SWD injection testing, a maximum bottom-hole pressure gradient of approx. 0.5 psi/ft. was achieved.

PERMIAN OILFIELD PARTNERS

WELLBORE SCHEMATIC

Permian Oilfield Partners, LLC.
Wildrye Fee SWD #1
410' FNL, 240' FEL
Sec. 20, T19S, R35E, Lea Co. NM
Lat 32.652154° N, Lon -103.471636° W
GL 3797', RKB 3825'

Surface - (Conventional)
Hole Size: 26"
Casing: 20" - 133# X-56 BTC Casing
Depth Top: Surface
Depth Btm: 1892'
Cement: 1859 sks - Class C + Additives (100% Excess)
Cement Top: Surface - (Circulated 275 sks)

Intermediate #1 - (Conventional)
Hole Size: 17.5"
Casing: 13.375" - 72# C-110 Hydril 563 Casing
Depth Top: Surface
Depth Btm: 3610'
Cement: 2530 sks - Class C + Additives
Cement Top: Surface - (Circulated 656 sks)

Intermediate #2 - (Conventional)
Hole Size: 12.25"
Casing: 9.625" - 40# P-110 BTC Casing
Depth Top: Surface
Depth Btm: 10694'
Cement: 1475 sks - Halliburton NeoCem + Additives
Cement Top: Surface - (Circ 597 sks off DV tool, Circ 298 sks on stg 2)
ECP/DV Tool: 5325'

Intermediate #3 - (Liner)
Hole Size: 8.75"
Casing: 7.625" - 39# HP-110 FJM Casing
Depth Top: 10544'
Depth Btm: 14530'
Cement: 375 sks - Class H + Additives
Cement Top: 10544' - (Circulated 106 sks off liner top & Bond Log)

Intermediate #4 - (Open Hole)
Hole Size: 6.5"
Depth: 15575'
Inj. Interval: 14530' - 15575' (Open-Hole Completion)

Tubing - (Tapered)
Tubing Depth: 14470'
Tubing: 7" - 26# HCP-110 HTGT Casing & 5.5" 17# HCL-80 HTGT Casing (IPC)
X/O Depth: 10388'
X/O: 7" 26# HCP-110 HTGT X - 5.5" 17# HCL-80 HTGT (IPC)
Packer Depth: 14470'
Packer: 5.5" - Inconel Permanent Packer
Packer Fluid: Diesel + Additives

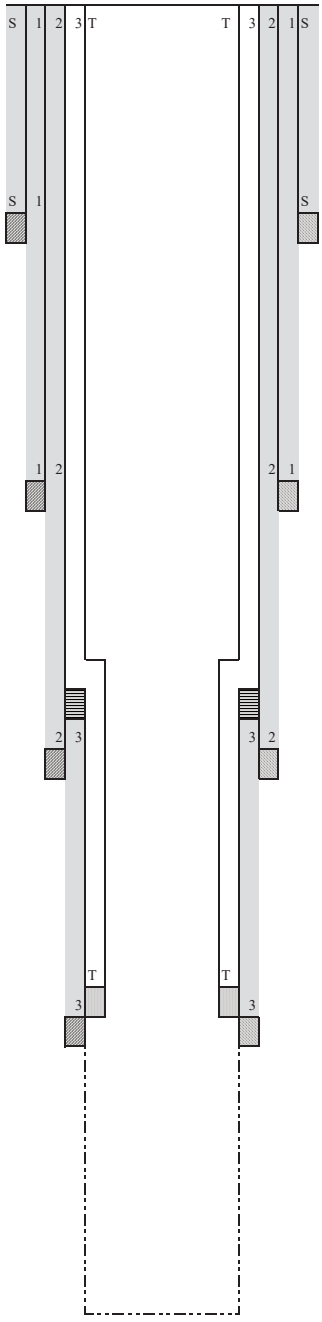

FIGURE 4. AS-BUILT WILDRYE FEE SWD #1 WELL SCHEMATIC

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
https://www.emnrd.nm.gov/ocd/contact-us

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Operator: Ranger Water Midstream, LLC 1008 Southview Circle Center, TX 75935	OGRID: 333197
	Action Number: 460697
	Action Type: [C-103] Sub. General Sundry (C-103Z)

CONDITIONS

Created By	Condition	Condition Date
mgebremichael	None	5/14/2025