UICI-8-1

EPA FALL-OFF TEST REPORT (WDW-1)

2022

Petrotek

Technical Report

MECHANICAL INTEGRITY AND RESERVOIR TESTING

CLASS I NON-HAZARDOUS DEEPWELL
MEWBOURNE WELL NO. 1
(OCD UIC Permit: UICI-008-1)
(API Number: 30-015-27592)

HollyFrontier Navajo Refining Company
Artesia, New Mexico

Section 31, Township 17S, Range 28E
660 FSL, 2310 FEL

June 17, 2022

Petrotek Corporation
5935 South Zang Street, Suite 200
Littleton, Colorado 80127
Phone: (303) 290-9414
Fax: (303) 290-9580

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Report prepared by:

Petrotek Corporation
Kenneth J. Cooper, P.E., New Mexico Reg. No. 14175
5935 South Zang Street, Suite 200
Littleton, Colorado 80127

EXECUTIVE SUMMARY

This report summarizes the successful mechanical integrity testing (MIT) and falloff testing (FOT) activities performed on the Mewbourne WDW-1 at the HollyFrontier Navajo Refining Company (HFNR) facility at Artesia, New Mexico. The work was performed as a condition of the applicable UIC permit issued by the New Mexico Oil Conservation Division (OCD). Under contract, Petrotek Corporation (Petrotek) developed the MIT procedures, provided field supervision, completed pressure transient test analysis, and prepared the final report documenting the fieldwork on the Class I non-hazardous injection well.

The test procedures were submitted to the OCD headquarters and OCD District II on May 17, 2022 before field activities commenced. Attachment 1 presents the test notification and procedures. Approvals were received from regulatory agency staff prior to commencement of activities. No OCD personnel were present to witness testing. MIT and reservoir testing activities were supervised by Nolan Beasley (Petrotek).

The field activities consisted of an annulus pressure test (APT) and an injection falloff test. The well satisfactorily demonstrated mechanical integrity pursuant to the applicable UIC permit, guidelines and regulations. All MIT requirements were satisfied as a result of the work performed. Wellbore and reservoir properties were confirmed as similar to those determined from analysis of the previous testing conducted in the well.

1. FACILITY INFORMATION

a. **Name** - HollyFrontier Navajo Refining Company
b. **Location** - Highway 82 East, Artesia, New Mexico, 88211
c. **Operator's Oil And Gas Remittance Identifier (GRD) Number** - 15694

2. WELL INFORMATION

a. **OCD UIC Permit -** UICI-008-1
b. **Well classification** - Class I Non-hazardous
c. **Well name and number** - Mewbourne WDW-1
d. **API Number** - 30-015-27592
e. **Legal Location** - 660 FSL, 2210 FEL, Section 31, Township 17S, Range 28E

3. CURRENT WELLBORE SCHEMATIC

A wellbore schematic displaying the well configuration during testing is provided as Figure 1. A wellhead schematic is provided as Figure 2.

4. COPY OF AN ELECTRIC LOG ENCOMPASSING THE COMPLETED INTERVAL

A copy of the dual induction log run in 1993 during the initial completion of the well was submitted with the original permit and can be found online on the OCD website as part of the OCD well files for this well.

5. COPY OF RELEVANT PORTIONS OF ANY POROSITY LOG USED TO ESTIMATE FORMATION POROSITY

A copy of the neutron density log, encompassing the completed interval between 7,924 and 8,476 feet Below Ground Level (BGL), can be found online on the OCD website as part of the well files for this well. From these logs, it was determined that the injection reservoir thickness is approximately 175 feet with an average porosity of 10 percent. These values are consistent with historical test analyses. Petrotek utilized these values for the analysis performed for and presented in this report.

6. PVT DATA OF THE FORMATION AND INJECTION FLUID

Fluid samples of connate brine from the injection interval were collected from WDW-1 (33,000 mg/L) and WDW-2 (20,000 mg/L) during recompletion as Class I UIC wells. Both of these wells are completed in the same injection formation. The average density and total dissolved solids (TDS) of the fluids recovered from the two wells were 1.03 g/cc and 26,500 mg/l, respectively. The results of formation fluid analysis were provided in documents previously submitted to and approved by OCD. Available analyte values for WDWs 1, 2, and 3 are provided in Table 1.

TABLE 1
HFNR FORMATION FLUID SAMPLE ANALYSIS RESULTS

Chemical	Mewbourne Well (WDW-1)	Chukka Well (WDW-2)	Gaines Well (WDW-3)	Average
Date	7/31/1998	6/14/1999	9/8/2006	
Fluoride (mg/L)	2.6	9.7	ND	6.15
Chloride (mg/L)	19,000	15,000	10,447	14,816
NO_3-N (mg/L)	<10	<10	--	<10
SO_4 (mg/L)	2,200	2,000	1,908	2,036
$CaCO_3$ (mg/L)	1,000	1,210	--	1,105
Specific Gravity (unitless)	1.0340	1.0249	--	1.0295
TDS (mg/L)	33,000	20,000	--	26,500
Specific Conductance (uMHOs/cm)	52,000	43,000	--	47,500
Potassium (mg/L)	213	235	85.5	177.8
Magnesium (mg/L)	143	128	155	142
Calcium (mg/L)	390	609	393	464
Sodium (mg/L)	12,770	8,074	6,080	8,975
pH	8.10	7.20	--	7.65

Note: ND: Non-detect; -- indicates no analysis.

The formation viscosity, fluid compressibility, and total compressibility were estimated using the average brine salinity along with the bottom hole temperature and pressure recorded in the well at the depth of the injection zone in conjunction with industry standard correlations. The correlations used are presented in the SPE textbook on Pressure Transient Testing which was published as part of the SPE Textbook Series as Volume 9. For the sake of brevity, only page, equation, and figure numbers from this volume are listed subsequently in this report as a reference for all correlations presented for the PVT data.

The percent solids for the fluid was approximated as 2.65%, based on the average 26,500 mg/l TDS brine concentration for the formation samples presented in Table 1. A bottom hole temperature of 126.4 °F has been used as representative of the formation for these correlations. This value was derived from the original temperature log, run in 1998 when the well was recompleted. This log can be found on the OCD website as part of the WDW-1 well files.

Fluid viscosity was estimated using multiple equations developed by McCain that first are used to estimate fluid viscosity at atmospheric conditions (equations B-72, 73, and 74), which is then converted to viscosity at bottom hole conditions (equation B-75) by using a correction factor. These equations can be found on page 527. As a primary input for the correlation, pressure is required. The formation pressure has been estimated at a depth of 7,924 feet below ground level (BGL) using the average formation fluid specific gravity based on the TDS values provided in Table 1. Using this method, a value of 3,522 psi has been estimated as the initial reservoir pressure (7,924 feet BGL). At this pressure and a temperature of 126.4 °F, the following equations have been used to derive viscosity:

$$\mu_{w1} = AT^{B} \quad \text{(B-72)}$$

$$A = 109.574 - 8.40564 * S + 0.313314 * S^2 + 8.72213 * 10^{-3} * S^3 \quad \text{(B-73)}$$

$$B = -1.12166 + 2.63951 * 10^{-2} * S - 6.79461 * 10^{-4} * S^2 - 5.47119 * 10^{-5} * S^3 + 1.55586 * 10^{-6} * S^4 \quad \text{(B-74)}$$

$$\frac{\mu_w}{\mu_{w1}} = 0.9994 + 4.0295 * 10^{-5} * P + 3.1062 * 10^{-9} * P^2 \quad \text{(B-75)}$$

Where,

μ_{w1} is the viscosity of the formation fluid at atmospheric conditions
T_F is the bottom hole temperature in °F
S is the percent of solids
P is the bottom hole pressure in psi
μ_w is the viscosity of the brine at bottom hole conditions

Using these equations, a value of 0.57 centipoise is calculated for the formation fluid viscosity.

Formation Compressibility was estimated using equation L-89 provided on page 337. This equation was developed for limestone formations, consistent with the primary composition of the effective injection interval (see discussion in Section 11).

$$c_f = \frac{a}{(1+bc\Phi)^{\frac{1}{b}}} \quad \text{(L-89)}$$

Where,

a = 0.8535
b = 1.075
c = 2.303 * 10^6
Φ = 0.10

Based on this equation, a value of 8.20E-6 psi^{-1} is derived for formation compressibility.

Fluid compressibility was estimated using figures L-30 and L-31 on page 338 with a bottom hole temperature of 126.4 °F, a bottom hole pressure (BHP) of 3,522 psi, and a dissolved solids weight of 2.65%. Using Figure L-31 to first estimate freshwater compressibility, a value of 2.86E-06 psi^{-1} is derived. Using Figure L-30, the coefficient of isothermal compressibility (ratio of brine compressibility over freshwater compressibility) was determined to be approximately 0.95. This results in a value of 2.70E-06 psi^{-1} for the formation fluid compressibility (c_w).

By combining the formation and formation fluid compressibility, the total system compressibility is determined. The total system compressibility (c_t) is approximately 1.09 E-05 psi^{-1}.

The values presented in this section have been used for analysis unless stated otherwise.

7. DAILY RATE HISTORY FOR A MINIMUM OF ONE MONTH PRECEDING THE FALLOFF TEST

The following table summarizes data acquired with HFNR well monitoring equipment for the month prior to and the month that testing was conducted.

TABLE 2
APRIL AND MAY INJECTION DATA

Date	Injection Pressure (psi)	Injection Rate (gpm)	Annulus Pressure (psi)
4/1/2022	1,097.1	263.0	1.7
4/2/2022	1,099.0	299.0	-0.4
4/3/2022	1,047.6	294.5	-1.6
4/4/2022	1,074.8	276.5	4.5
4/5/2022	1,272.5	279.2	4.6
4/6/2022	1,222.5	223.5	4.2
4/7/2022	1,180.9	199.3	3.4
4/8/2022	1,147.4	171.0	5.9
4/9/2022	1,332.9	238.8	9.2
4/10/2022	1,248.0	210.4	6.5

Date	Injection Pressure (psi)	Injection Rate (gpm)	Annulus Pressure (psi)
4/11/2022	1,097.3	223.4	6.2
4/12/2022	988.5	214.4	3.6
4/13/2022	940.5	205.5	3.9
4/14/2022	882.9	245.2	4.6
4/15/2022	1,032.9	216.4	4.5
4/16/2022	1,006.1	244.3	6.1
4/17/2022	1,075.1	312.6	7.7
4/18/2022	1,102.9	256.5	6.0
4/19/2022	1,132.2	245.4	7.8
4/20/2022	1,342.8	276.4	9.7
4/21/2022	1,210.4	281.4	8.1
4/22/2022	1,169.0	263.9	5.4
4/23/2022	1,129.2	228.9	3.5
4/24/2022	998.3	269.0	3.8
4/25/2022	1,012.6	269.6	5.9
4/26/2022	1,034.2	289.3	276.7
4/27/2022	1,122.1	250.0	702.2
4/28/2022	1,108.1	227.8	677.9
4/29/2022	1,191.4	264.6	910.8
4/30/2022	1,123.8	239.7	699.6
5/1/2022	1,089.8	311.5	524.3
5/2/2022	1,125.1	244.0	543.2
5/3/2022	1,144.7	272.4	540.7
5/4/2022	1,186.6	232.4	505.4
5/5/2022	1,232.7	312.4	517.2
5/6/2022	1,050.4	258.3	894.3
5/7/2022	1,085.3	234.4	1,003.7
5/8/2022	1,179.3	220.7	926.1
5/9/2022	1,016.3	295.0	848.5
5/10/2022	1,000.6	340.0	886.6
5/11/2022	1,079.3	217.5	787.2
5/12/2022	1,005.9	257.8	687.8
5/13/2022	1,000.1	307.3	497.7
5/14/2022	1,005.9	278.1	491.1
5/15/2022	1,032.0	254.5	506.4
5/16/2022	1,000.1	283.5	452.3
5/17/2022	945.2	250.7	410.8
5/18/2022	913.4	305.3	345.0
5/19/2022	956.2	233.8	354.4
5/20/2022	935.9	264.1	321.2
5/21/2022	1,000.5	305.3	338.5
5/22/2022	1,031.0	229.5	425.4
5/23/2022	975.1	262.0	387.8

8. CUMULATIVE INJECTION INTO THE FORMATION FROM TEST WELL

At the time of shut-in during testing, the cumulative volume of waste injected into this well since operations began, based on OCD and HFNR records, is 49,029,096 barrels (2,059,222,044 gallons).

9. PRESSURE GAUGES

a. **Describe the type of downhole surface pressure readout gauge used included manufacturer and type -** Two downhole pressure and temperature memory gauges were utilized for the falloff testing. The gauges were 1.25-inch Quartz pressure and temperature memory gauges manufactured by DataCan (Part No. 101696).

b. **List the full range, accuracy and resolution of the gauge(s) -** The memory gauges are designed to measure pressure to an accuracy of 0.03% of full scale and a resolution of 0.01% of full scale, and operate within a range of 14.7 to 10,000 psi.

c. **Provide the manufacturer's recommended frequency of calibration and a calibration certificate showing the date the gauge was last calibrated -** These gauges are recommended to be calibrated once per year. These gauges were last calibrated on 5/28/2021. The most recent calibration certificates are provided in Attachment 3. The bottom gauge (Serial Number - 224831) was utilized for analysis and hung at a test depth of 7,887 feet BGL.

10. ONE-MILE AREA OF REVIEW (AOR)

A standard one-mile Area of Review (AOR) was evaluated for WDW-1 as part of the annual testing and reporting requirements. The wells located within this one-mile AOR are listed in Attachment 6. This table contains the operator, well name, API number, well type, location, well status and date of completion or abandonment. A figure displaying the wells located in the AOR and the wells in the surrounding sections has been provided as Figure 13.

Based on the data review, there have been four wells drilled within the AOR in the last year, none of which penetrate to the top of the injection interval. No wells have been plugged and abandoned (P&A'd) within the AOR in the past year. Table 3 summarizes the wells drilled within in the AOR over the prior year.

TABLE 3
WELLS DRILLED WITHIN AOR DURING THE PAST YEAR

Operator	Well Name	API	Well Type	PLSS Location (ULSTR)	Total Vertical Depth (ft)	Lat Long	Spud Date
Spur Energy Partners LLC	WAUKEE 36 STATE COM #051H	30-015-49019	Oil	L-31-17S-28E	3,950	32.7894 -104.2212	11/19/2021
Spur Energy Partners LLC	WAUKEE 36 STATE COM #011H	30-015-49018	Oil	L-31-17S-28E	3,445	32.7896 -104.2239	11/22/2021
Spur Energy Partners LLC	WAUKEE 36 STATE COM #010H	30-015-49026	Oil	M-31-17S-28E	3,550	32.7854 -104.2211	11/11/2021
Spur Energy Partners LLC	WAUKEE 36 STATE COM #002H	30-015-49020	Oil	M-31-17S-28E	3,325	32.787 -104.2239	11/15/2021

a. **Wells Located Within the One-mile AOR -** The wells located within the one-mile AOR are provided as Attachment 6. This table contains the operator, well name, API number, well type, well status, location, and date of abandonment or completion.

b. **Status of Wells Within AOR -** In Attachment 6, the abbreviation SWD indicates Salt Water Disposal, P&A indicates Plugged and Abandoned, TA indicates Temporarily Abandoned, and AL indicates Abandoned Location.

c. **Provide details on any offset producers and injectors completed in the same injection interval -** HFNR operates three other Class I Injection wells, two of which are completed in the same interval, WDW-2 and WDW-3. Neither of these wells are located within the one-mile WDW-1 AOR. Based on public data, there is one additional well, not operated by HFNR that is located within the AOR and injects into the same interval. This well is the Walter Solt State #001 operated by Walter Solt, LLC. No offset producers exist that are completed in the injection interval within the AOR based on public data. Additional information is presented in Section 12 of this report.

11. GEOLOGY

a. Describe the geologic environment of the injection interval
b. Discuss the presence of geologic features, i.e., pinchouts, channels and faults, if applicable
c. Provide a portion of a relevant structure map, if necessary

The following discussion provides responses to the requirements listed above. This discussion is primarily based on information presented in previous permit applications for this well.

The WDW-1, 2, and 3 wells are located in the northern part of the Delaware Basin. The injection interval for these three wells is composed of carbonates from the Permian-age Lower Wolfcamp Formation, Pennsylvanian-age Cisco Formation, and Pennsylvanian-age Canyon Formation. The Wolfcamp unconformably overlies the Cisco and Canyon Formations. Table 3, sourced from the 2019 MIT report, presents a summary of the logged formation depths for these formations in each of the wells. The geologic interpretations have been confirmed but not revised as part of this report.

TABLE 4
HFNR INJECTION FORMATION TOPS – WDW-1, 2, and 3

Formation	WDW-1 (KB = 3,693 ft AMSL)		WDW-2 (KB = 3,623 ft AMSL)		WDW-3 (KB = 3,625 ft AMSL)	
	MD, KB (ft)	AMSL, KB (ft)	MD, KB (ft)	AMSL, KB (ft)	MD, KB (ft)	AMSL, KB (ft)
Lower Wolfcamp	7,450	-3,757	7,270	-3,647	7,303	-3,678
Cisco	7,816	-4,123	7,645	-4,022	7,650	-4,025
Canyon	8,475	-4,782	8,390	-4,767	8,390	-4,765
Base of Injection Zone (Base of Canyon)	9,016	-5,323	8,894	-5,271	8,894	-5,269

The lower portion of the Wolfcamp Formation, referred to as the Lower Wolfcamp, is the uppermost unit in the injection interval. The top of the zone ranges from a depth of 7,303 – 7,450 feet KB in the referenced wells. A structure map of the top of the Wolfcamp is provided in Figure 3. The Wolfcamp ranges from fine to medium-grained, limestones with interbedded shales (Meyer, 1966). The picks for the top of the Wolfcamp were made from log correlations. The Wolfcamp is overlain by the dense, dolomitic Abo Formation. The gross thickness of the Lower Wolfcamp is approximately 363 feet thick. According to porosity log data from the area, the Wolfcamp porosity is generally greater than 5%.

The Cisco Formation is described as consisting of limestone/dolomite with some interbedded shales and fine-grained sandstones (Lindsay et al., 2006). The top of the Cisco occurs at approximately 7,645 – 7,816 feet KB. A structure map of the

top of the Cisco can be found in Figure 4. Coarse-grained dolomites have been noted to have interstitial to cavernous porosity (Lindsay et al., 2006). At the three HFNR wells, the Cisco Formation is a porous dolomite that ranges from a gross thickness of 659 feet to 745 feet. The net thickness using a porosity cutoff of greater than 10% is approximately 100 feet in WDW-1, 32 feet in WDW-2, and 65 feet in WDW-3.

The Canyon Formation typically consists mostly of brown limestone with interbedded grey shales (Lindsay et al., 2006). The top of the Canyon occurs at approximately 8,400 KB. Some white sandstone and conglomerates have been noted at the base of the Canyon (Lindsay et al., 2006). Some dolomites have been noted to be present in the Canyon as well. Gross thickness of the Canyon Formation is approximately 504-541 feet in the three wells. The net thickness using a porosity cutoff greater than 5% is approximately 34 feet in WDW-1, 30 feet in WDW-2, and 10 feet in WDW-3. No intervals appear to have a porosity more than 10%, based on logs. A structure map is provided in Figure 5 which displays the top of the Strawn Formation, indicating the bottom of the Canyon Formation.

12. OFFSET WELLS

HFNR operates three other Class I Injection wells locally, two of which are completed in the same interval, WDW-2 and WDW-3. These wells are not within the 1-mile AOR surrounding WDW-1. WDW-2 is approximately 10,900 feet to the southwest of WDW-1, while WDW-3 is approximately 7,800 feet to the southwest of WDW-1. These wells were used for injection at a constant rate during the duration of testing this year, are at a significant distance from the test well in a relatively high-permeability system, and are not considered to have had a significant impact on the testing performed on WDW-1.

There is one additional well, not operated by HFNR, that is within the AOR and injects into the same interval (Walter Solt State #001; API: 30-015-25522).

a. **Identify the distance between the test well and any offset wells completed in the same injection interval –** The Walter Solt State #001 is approximately 4,600 feet to the southeast. Distance to the other HFNR injectors is discussed in the preceding paragraph.

b. **Report the status of the offset wells during both the injection and shut-in portions of the test -** The offset HFNR wells were operated at a constant rate during testing.

c. **Describe the impact, if any, of the offset wells during both the injection and shut-in portions of the test -** There was no significant discernable impact on the character of the falloff test and the development of a useful test from these offset injectors. No injection was listed on the state website for the Walter Solt State #001 well during May 2022. It is noted that WDW-3 lies within the calculated radius of investigation. Further discussion of possible late-time effects is included in Section 15 of this report.

13. CHRONOLOGICAL LISTING OF THE DAILY TESTING ACTIVITIES

a. **Date of the test -** Testing was performed from May 24 through 26, 2022.

b. **Time of the injection period -** Constant-rate injection occurred for approximately 48 hours before the falloff test began. This injection period exceeded the duration of the falloff.

c. **Type of injection fluid -** Filtered waste was utilized as test injection fluid.

d. **Final injection pressure and temperature prior to shutting in the well -** Prior to shutting in the well, the bottom hole injection pressure was 4,341.7 psia (at 7,887 feet KB) and the injection rate was 262.0 gpm (8,983 bwpd) with a measured bottom hole temperature of 96.4 °F.

e. **Total shut-in time -** The well was shut-in for approximately 45 hours for testing.

f. **Final static pressure and temperature at the end of the falloff portion of the test -** At the conclusion of the test, the final bottom hole pressure was 4,131.7 psia and the final bottom hole temperature was 105.7 °F.

14. DESCRIBE THE LOCATION OF THE SHUT-IN VALVE USED TO CEASE FLOW TO THE WELL FOR THE SHUT-IN PORTION OF THE TEST

The well was shut-in using a wing valve located on the inlet side of the wellhead.

15. PRESSURE FALLOFF ANALYSIS

This section addresses requirements 15-20 of Section IX, Report Components, of the OCD falloff test guidelines. The equations, parameters and calculations utilized to derive these values are detailed further in the following discussion. Table 5 contains input values used to perform the specified calculations.

The raw digital data collected during the test is provided in Attachment 7. The contracted service company that supplied the gauges used for testing generated an injection falloff test summary report based on the data that was collected. This report is provided in Attachment 4.

a. **Radius of test investigation -** The radius of investigation for this test was determined to be approximately 9,917 feet based on the average permeability derived from test analysis.

b. **Time to beginning of the infinite acting portion of the test -** The time at which the test began to display attributes that may be consistent with transition to radial flow was approximately 10 hours after shut-in. This value was derived from a model fit of the log-log data and overall derivative behavior that is consistent with testing data from 2021.

c. **Slope(s) determined from the semi-log plot -** The slope for the middle-time radial period, as determined from the semi-log plot, was 2.95 psi/cycle.

d. **Transmissibility (kh/μ) -** The transmissibility was determined to be 495,672 md-ft/cp.

e. **Permeability (k) -** The permeability was determined to be 1,614 md.

f. **Skin Factor (s) -** The skin factor was determined to be 73.0 units.

g. **Pressure drop due to skin (ΔP_{skin}) -** The pressure drop due to skin was determined to be 186.8 psi

h. **Flow efficiency -** The flow efficiency was determined to be 0.11.

i. **Flow capacity (kh) -** The flow capacity (permeability-thickness) was determined to be 282,533 md-ft.

j. **P_{1hr} -** The extrapolated 1-hr pressure was determined to be 4,134.2 psi.

TABLE 5
FALLOFF TEST ANALYSIS INPUT VALUES

Parameter	Value	Unit
Formation Thickness, h	175	feet
Porosity, Φ	10	percent
Viscosity, μ	0.57	centipoise
Formation Compressibility, c_f	8.20E-06	1/psi
Total Compressibility, c_t	10.90E-06	1/psi
Formation Volume Factor, B	1.00	bbl/stb
Wellbore Radius, r_w	0.3646	feet
Final Well Flowing Pressure, p_{wf}	4,341.8	psia
Final Injection Rate, q_{final}	8,983 262	bwpd (gpm)
Horner Straight Line Slope, m	2.94673	psi/cycle

The average historical injection period used to account for total volume in the analysis was calculated by dividing the cumulative historical injection through August 17, 2020 (43,995,961 barrels) by the final injection rate (163 gpm). This resulted in a value of 188,939 hours. This value of 188,939 hours of injection at 163 gpm was used in conjunction with the injection data collected from August 17, 2020 through May 24, 2022. The total waste volume injected up to the time of shut-in utilized for calculations was 49,029,096 barrels (2,059,222,044 gallons).

To determine the mobility-thickness (transmissibility), the following equation was utilized. The resulting transmissibility was 495,672 md-ft/cp.

$$\frac{kh}{\mu} = 162.6\frac{q_{final}B}{m}$$

Where,

k is the permeability, in md
h is the formation thickness, in feet
μ is the viscosity of the formation fluid, in cp
q is the final flow rate, in bpd
B is the formation volume factor in RB/STB
m is the slope of the line assigned to the radial flow period on the semi-log plot, in psi/cycle
and 162.6 is a units conversion constant

$$\frac{kh}{\mu} = Transmissibility = 162.6\frac{8{,}982.86 * 1.0}{2.94673} = 495{,}672\frac{md-ft}{cp}$$

The transmissibility derived from the slope of the semi-log straight line was then used to determine the permeability thickness. The resulting permeability-thickness was 282,533 md-ft.

$$kh = \left(\frac{kh}{\mu}\right)\mu = 495{,}672\left(\frac{md-ft}{cp}\right)0.57\ cp = 282{,}533\ md-ft$$

This permeability thickness was then used to determine the permeability of the reservoir. The resulting permeability was 1,614 md.

$$k = \frac{kh}{h} = \frac{282{,}533\ md-ft}{175\ ft} = 1{,}614\ md$$

In order to determine if the appropriate viscosity was utilized in the previous calculations, it must be determined if the pressure transient was traveling through reservoir fluids. This is done by determining the time it is expected to take the pressure transient to travel through the injected fluid. The first step of this is to determine the approximate radius of waste emplaced by injection. The idealized piston-like displacement radius was estimated to be 2,238 feet.

$$r_{waste} = \sqrt{\frac{0.13368 * V}{\pi h \Phi}}$$

Where,

r_{waste} is the distance to the waste front, in feet
V is the total volume of fluid injected into the well, in gallons
h is the formation thickness, in feet
Φ is the porosity, as a fraction
0.13368 is a conversion constant

$$r_{waste} = \sqrt{\frac{0.13368 * (2{,}059{,}222{,}044)}{\pi * 175 * 0.10}} = 2{,}238\ feet$$

Based on this radius, the time for a pressure transient to travel through this fluid can be calculated. The resulting time was approximately 1.83 hours.

$$t_{waste} = 948\frac{\Phi \mu_{waste} c_t r_{waste}^2}{k}$$

Where,

t_{waste} is the time for a pressure transient to reach the waste front, in hours
Φ is the porosity, as a fraction
μ_{waste} is the viscosity of the waste, in cp
r_{waste} is the radius of the waste front, in feet
c_t is the total compressibility, in psi^{-1}
k is the permeability, in md
948 is a conversion constant

$$t_{waste} = 948\frac{0.10 * 0.57 * 10.90E-06 * (2{,}238)^2}{1{,}614} = 1.83\ hours$$

Based on this result, and the time it took for evidence of any transition to radial flow (approximately 10 hours), it is likely that the pressure transient was dominated by reservoir fluid properties during the middle-time radial flow period, indicating that the appropriate viscosity was used for analysis.

The near wellbore damage, referred to as skin, can be calculated based on the results of the straight line, semi-log analysis as well. This is done by utilizing the following equation. The result of this calculation was a skin of 73.0 units.

$$s = 1.151\left(\frac{P_{wf} - P_{1hr}}{m} - log\left(\frac{k}{\Phi \mu c_t r_w^2}\right) + 3.23\right)$$

Where,

s is skin damage, in units
P_{wf} is the shut-in well pressure, in psi
P_{1hr} is the extrapolated pressure at a time of 1 hour, using the slope of the straight line from the semi-log analysis, in psi
m is the slope of the radial line, in psi/cycle
k is the permeability, in md
Φ is the porosity, as a fraction
μ is the viscosity, in cp
r_w is radius of the wellbore in feet
1.151 and 3.23 are constants

$$s = 1.151\left(\frac{4{,}341.8 - 4{,}134.2}{2.94673} - log\left(\frac{1{,}614}{0.10 * 0.57 * 10.90E-06 * 0.3646^2}\right) + 3.23\right)$$

$$= 73.0$$

The pressure contribution of the skin term to wellbore pressure can be calculated using the following equation. The result of this calculation was 186.8 psi of pressure due to skin.

$$\Delta P_{skin} = 0.869 * m * s$$

Where,

ΔP_{skin} is the change in pressure due to skin damage, in psi
m is slope of the radial line, in psi/cycle
s is skin, in units
0.869 is a conversion constant

$$\Delta P_{skin} = 0.869 * 2.94673 * 73.0 = 186.8\ psi$$

The flow efficiency (FE) can be determined using the following equation, provided within the OCD Guidelines (Section IX, 15, h). The result of this calculation was 0.11.

$$FE = \frac{P_{wf} - \Delta P_{skin} - P_{end\ of\ test}}{P_{wf} - P_{end\ of\ test}}$$

Where,

P_{wf} is the shut-in well pressure, in psi
ΔP_{skin} is the change in pressure due to skin damage, in psi
$P_{end\ of\ test}$ is the pressure at the end of the falloff test, in psi

$$FE = \frac{4{,}341.8 - 186.8 - 4{,}131.7}{4{,}341.8 - 4{,}131.7} = 0.11$$

The test radius of investigation (r_{inv}) can be estimated using the following equation. The result of this calculation was 9,917 feet.

$$r_{inv} = 0.029\sqrt{\frac{kt}{\Phi\mu c_t}}$$

Where,

k is permeability, in md
t is time, in hours
Φ is porosity, as a fraction
μ is viscosity, in cp
c_t is total compressibility, in psi^{-1}
0.029 is a constant

$$r_{inv} = 0.029\sqrt{\frac{1{,}614 * 45}{0.1 * 0.57 * 10.90E-06}} = 9{,}917\ feet$$

Based on examination of the log-log diagnostic plot provided as Figure 9, the early time data is dominated by changing wellbore storage. The change in storage trend in the falloff after approximately 1-2 minutes may be associated with a transition to vacuum. This event extended the early time period of the test. It is likely that the test was transitioning to radial flow approximately 40 hours after shut-in and the test has been analyzed using the analytical Horner semi-log method based on the reasonable assumption that a period of radial flow exists in the data. However, late time data in the test is potentially impacted by gauge noise and non-radial behavior. The derivative shows that offset heterogeneity, interference, and/or dual porosity effects may influence the data through the test, with no clear indication of a late-time transition. Figure 10 shows the semi-log plot of the falloff with a straight line representing the possible radial flow period consistent with the deviation from storage shown on the log-log plot. The late-time tail at the end of the test is not accounted for in this analysis. The simulation analysis presented in Figure 9 generally supports the more simplistic graphical analysis that relies upon the semi-log slope.

The following figures are provided to illustrate the test analysis and results:

- Figure 6 - Cartesian Plot of Pressure, Temperature, and Rate vs. Time
- Figure 7 - Full Rate History Plot
- Figure 8 - Cartesian Plot of Pressure Falloff with Model Match
- Figure 9 - Log-log Derivative Plot with Model Match
- Figure 10 - Semi-log Horner Plot with Model Match
- Figure 11 - Daily Injection Rate History for Month Prior to Test Plot
- Figure 12 - Hall Plot

As specified by OCD requirements, a Hall Plot (Figure 12) generated from the data presented in Table 2 over the month leading up to the falloff test this year is included. It is noted that this plot of a limited elapsed time of the Hall function is a simplistic presentation based on correcting average daily wellhead pressures to bottomhole conditions based on hydrostatic head and tubing friction loss. The plot has been made with these BHP values rather than a pressure change (or dp) that

would be generated by subtracting original reservoir pressure from the injection pressure value. Because this BHP value is used, the Hall plot slope is not proportional to other indicators, but qualitatively can yield insight to well conditions based on changing slopes. Further, consistent with the Hall method, it is assumed that the reservoir is homogenous and isotropic, that none of the average daily pressures are impacted by transient flow (relatively continuous, constant rate injection took place), and that no offset wells are impacting pressure at this well during the time that the Hall function has been plotted. The slope of the data is fairly linear, and this linearity is consistent with no significant changes in well condition taking place during this time period. Based on this observed linear trend, there are no significant concerns noted with regard to well or reservoir performance.

Table 6 summarizes historical well test analysis results, including the results from the test this year. Attachment 6 presents a summary of the falloff test analysis.

TABLE 6
HISTORICAL AMBIENT RESERVOIR TEST MEASUREMENTS

Year	Fill Depth (feet)	Permeability (md)	Mobility-thickness (md-ft/cp)	Skin (units)	P* (psia)
2022	8,436	1,614	495,672	73.0	4,120.2
2021	8,375	1,501	460,906	264.0	4,111.4
2020	NA	1,155	320,873	117.9	4,153.3
2019	8,512	1,129	346,733	129.0	4,290.9
2018	8,470	1,025	314,769	87.0	4,361.6
2017	9,001	412	126,471	57.0	4,359.6
2016	8,890	520	159,662	67.0	4,433.2
2015	8,995	423	130,002	44.0	4,542.8
2014	8,990	546	167,698	44.0	4,404.7
2012	9,018	661	202,929	36.0	4,008.0
2011	9,001	685	210,441	69.0	3,846.2
2010	9,001	521	159,979	93.0	3,716.9
2009	9,001	883	271,155	77.0	3,591.6
2008	NA	1,592	488,655	262.0	3,527.4
Permit	NA	250	40,094	NA	NA

All raw data generated by the test will be kept on file by HFNR for a period not less than five years. The raw data has been provided as a part of this report, with additional files available upon OCD request.

16. PART I INTERNAL MECHANICAL INTEGRITY

On May 26, the well annulus was pressured to 660.9 psi. The well had been shut in for approximately 45 hours prior to the test, ensuring sufficient thermal equilibrium. A calibrated digital pressure gauge (Crystal XP2i, 5,000 psi, SN - 901241) supplied by Petrotek was installed on the annulus at the wellhead. The well and test gauge were then isolated from the rest of the system and annulus pressure was then monitored for a period of thirty minutes at 5-minute intervals. During the test the pressure decreased by 5.1 psi (0.8%). Since a change of 10% (66.1 psi) of the test pressure is allowable, this test is within acceptable specifications.

Attachment 2 presents a copy of the gauge certification. Attachment 7 contains the digital data collected during the APT. Pressures were observed during testing are shown in Table 7 below.

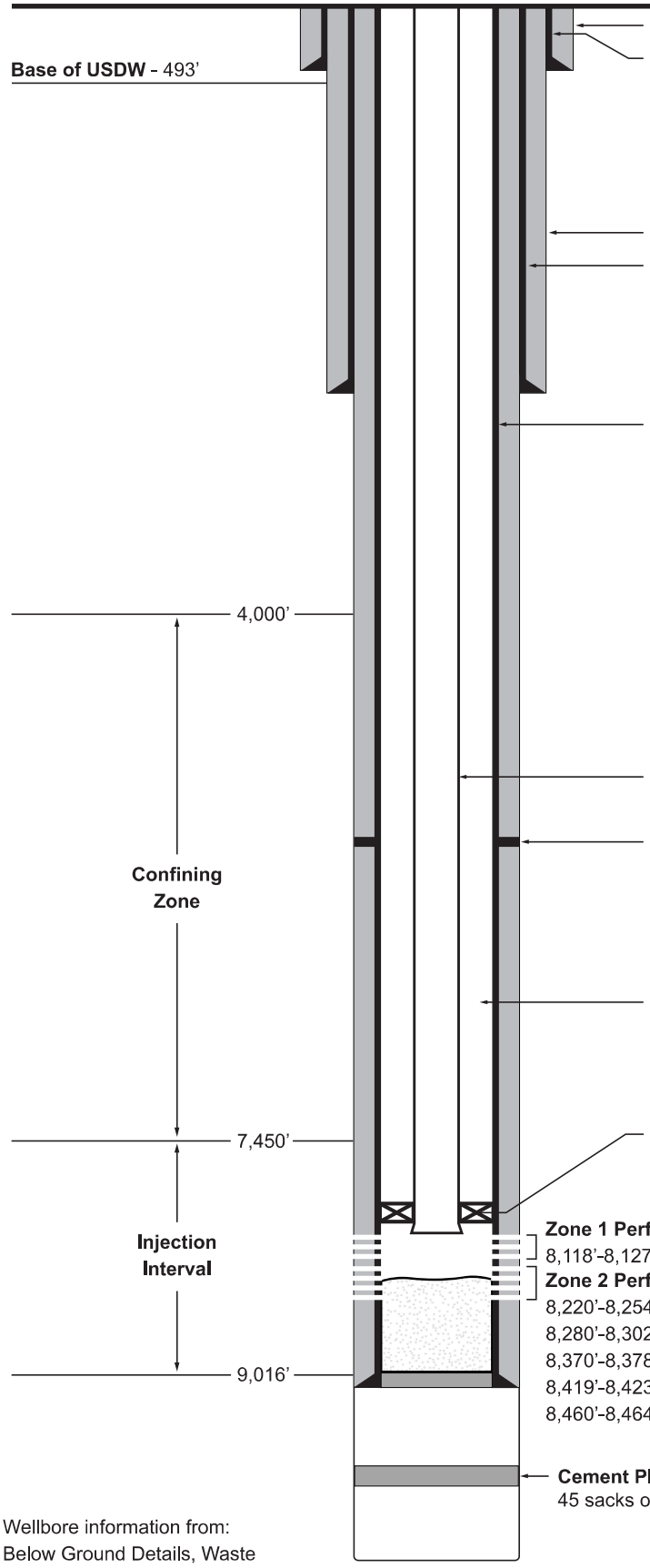
TABLE 7
ANNULUS PRESSURE TEST MEASUREMENTS

Time, Minutes	0	5	10	15	20	25	30
Annulus Pressure, Psi	660.9	659.0	658.0	657.5	656.7	656.3	655.8

FIGURES

OCD UIC Permit: UICI-008-1
Well API Number: 30-015-27592
Eddy County, New Mexico
Sec. 31, T17S-R28E
Lat. 32.78517° / Long. -104.21376° (NAD 83)

All depths referenced to Kelly Bushing (KB) elevation 2.5' above ground level.
Ground Level Elevation: +3,678' MSL



17-1/2" Hole

Surface Casing (0' - 390'): 13-3/8", 48 lb/ft, J-55, ST&C cemented to surface with 150 sacks of Class C with 3% calcium chloride, 375 sacks of Class C Litewate with 3% calcium chloride and 1/2 lb/sk flocele. Circulated 86 sacks to surface.

12-1/4" Hole

Intermediate Casing (0' - 2,555'): 9-5/8", 36 lb/ft, J-55, ST&C cemented with 800 sacks of Class C Lite with 1/2 lb/sk flocele and 2 lb/sk Gilsonite and 12% salt. Followed by 200 sacks of Class C with 2% calcium chloride. Circulated 133 sacks to surface.

Protection Casing (0' - 9,094'): 7", 26 lb/ft, P-110, LT&C (Surface - 5,845'). 7", 29 lb/ft, P-110, LT&C (5,845' - 7,031'). 7", 29 lb/ft, N-80, LT&C (7,031' - 9,094').

First Stage: 600 sacks of modified Class "H" with 0.4% CFR-3, 5 lb/sk Gilsonite, 0.5% Halad-344, and 1 lb/sk salt mixed at 13.0 ppg. Opened DV tool at 5,498' and circulated 142 sacks to surface.

Second Stage: Lead Slurry: 220 sacks of Interfill "C" (35:65:6) mixed at 11.7 ppg. Tail Slurry: 550 sacks of modified Class "H" with 0.4% CFR-3, 5 lb/sk Gilsonite, 0.5% Halad-344, 0.1% HR-7, and 1 lb/sk mixed at 13.0 ppg. Circulated 75 sacks to surface. Topped out with 20 sacks of premium plus 3% calcium chloride.

Injection Tubing (0' - 7,879'): 4-1/2", 11.6 lb/ft, N-80, SMLS, R3, LT&C

DV Tool (5,498')

Annulus Fluid: 8.7 lb/gal brine water mixed with UniChem Techni-Hib 370 corrosion inhibitor

Packer (7,879'): 7" x 3-1/2" EVI Oil Tools (Arrow), Model X-1 retrievable packer. Minimum I.D. = 3.0". Wireline re-entry guide at bottom. To release, turn 1/4-turn to the right and pick up.

Zone 1 Perforations: 7,924'-7,942', 7,974'-8,030', 8,050'-8,056', 8,066-8,080', 8,118'-8,127', 8,132'-8,140', 8,160'-8,164', 8,170'-8,188'.

Zone 2 Perforations:
8,220'-8,254', 8,260'-8,270', 8,280'-8,302', 8,360'-8,366', 8,370'-8,378', 8,400'-8,410', 8,419'-8,423', 8,430'-8,446', 8,460'-8,464', 8,470'-8,476'.

Cement Plug (9,624' - 9,734'): 45 sacks of Class H

Top of Fill: 8,436' (Tagged 5/2022)
PBTD: 9,004'
TD: 10,200'

Wellbore information from: Below Ground Details, Waste Disposal Well No. 1, by Subsurface Technology, Figure 1, 2001.

NOT TO SCALE

HOLLYFRONTIER

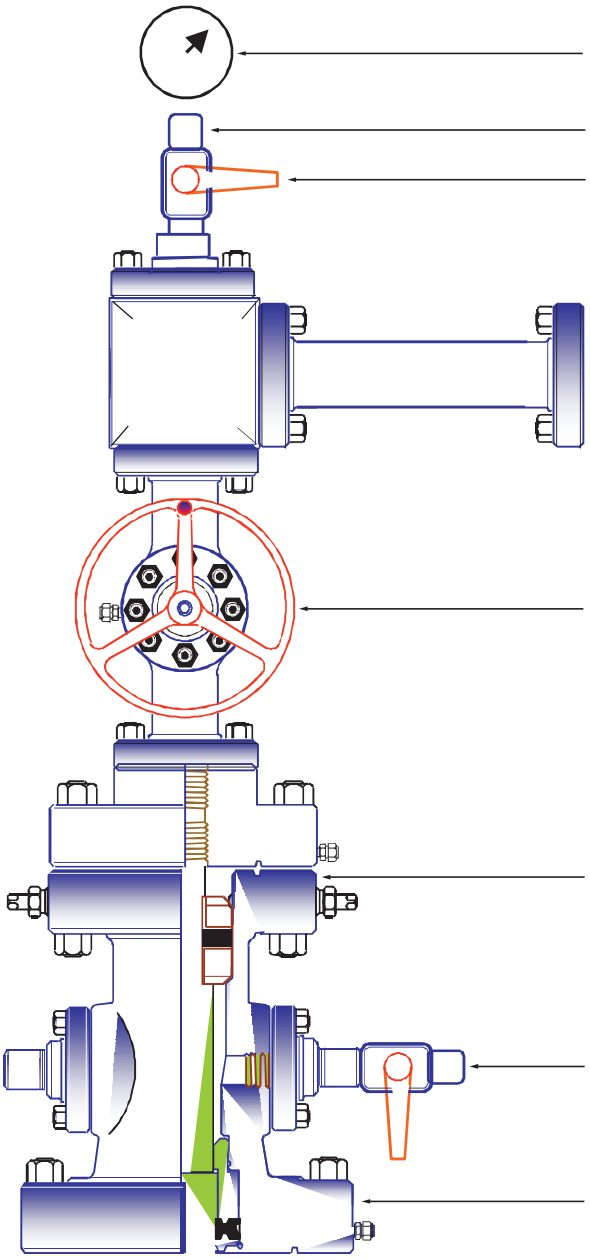
Figure 1
WDW No. 1,
Wellbore Schematic

2022 FOT/MIT Report

Scale: NTS	Date: June 2022	
Fig_01_HF_Artesia_2022_WDW_01.pdf	By: WEK	Checked: LW

Petrotek
5935 South Zang Street, Suite 200
Littleton, Colorado 80127 USA
303-290-9414
www.petrotek.com

OCD UIC Permit: UICI-008-1
Well API Number: 30-015-27592
Eddy County, New Mexico
Sec. 31, T17S-R28E
Lat. 32.78517° / Long. -104.21376° (NAD 83)



Well Head information partially from: Figure 5, Mewbourne Well No. 1 Wellhead Schematic by Superior Wellhead.

NOT TO SCALE

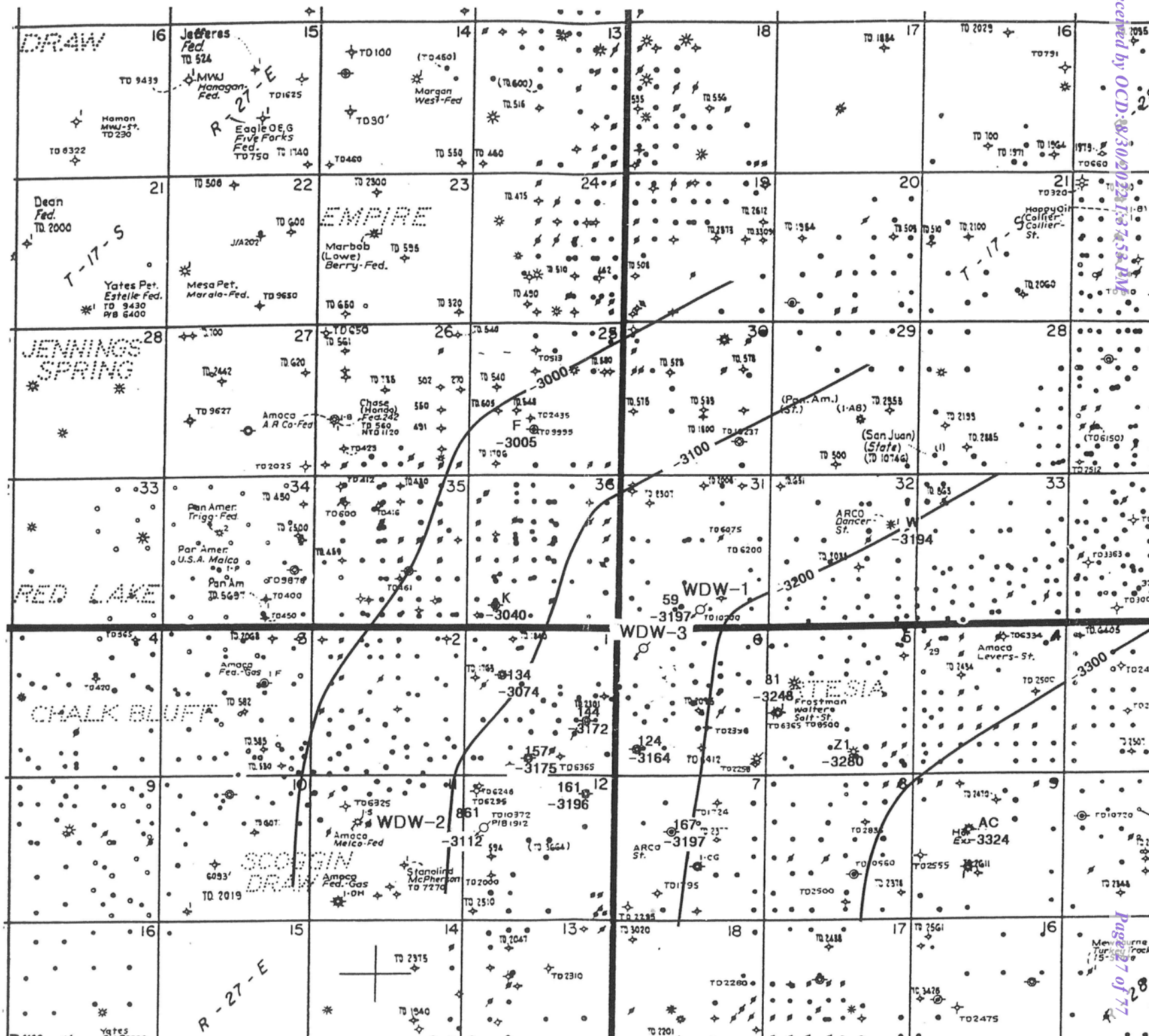
HOLLYFRONTIER

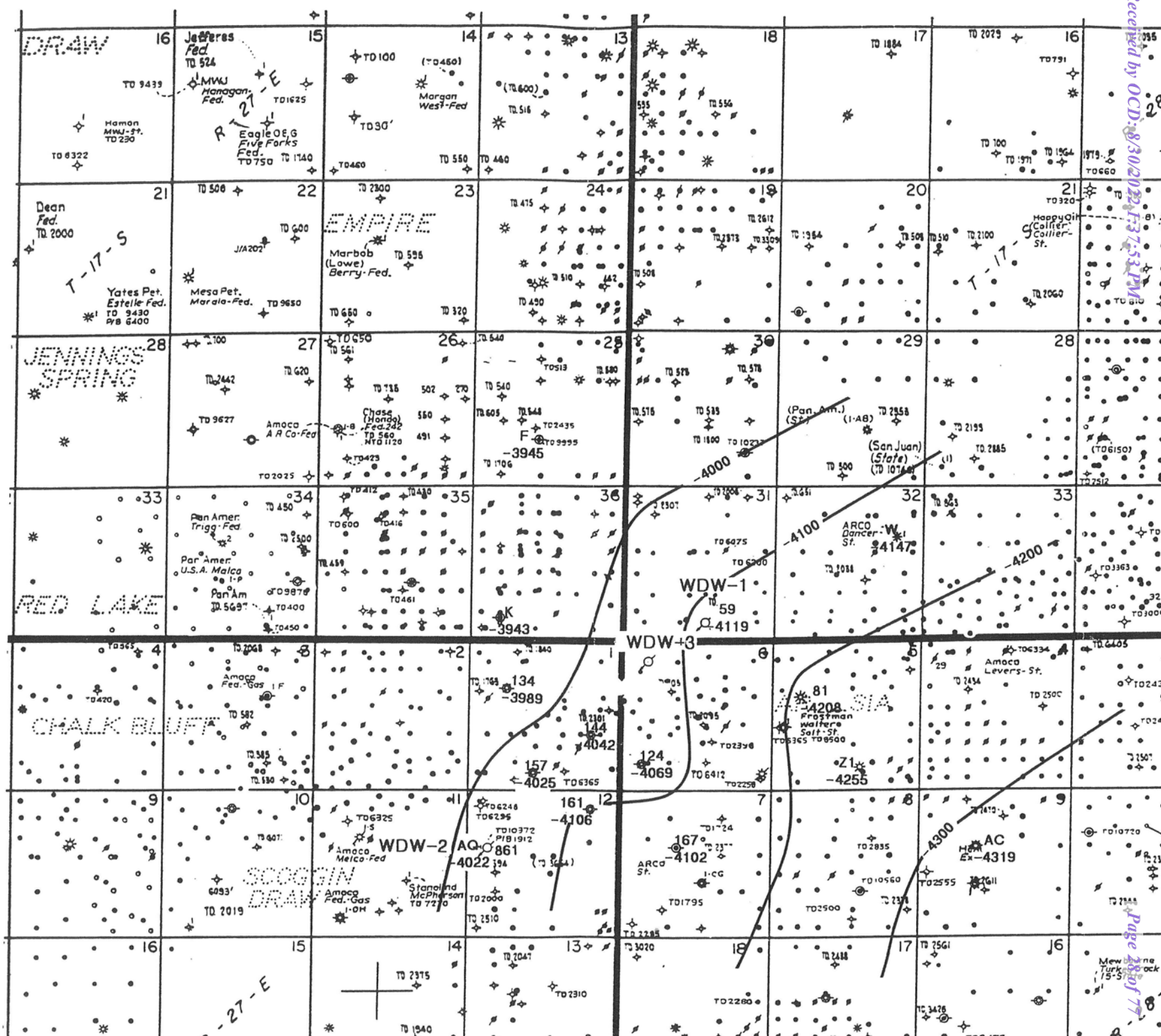
Figure 2
WDW No. 1,
Wellhead Schematic

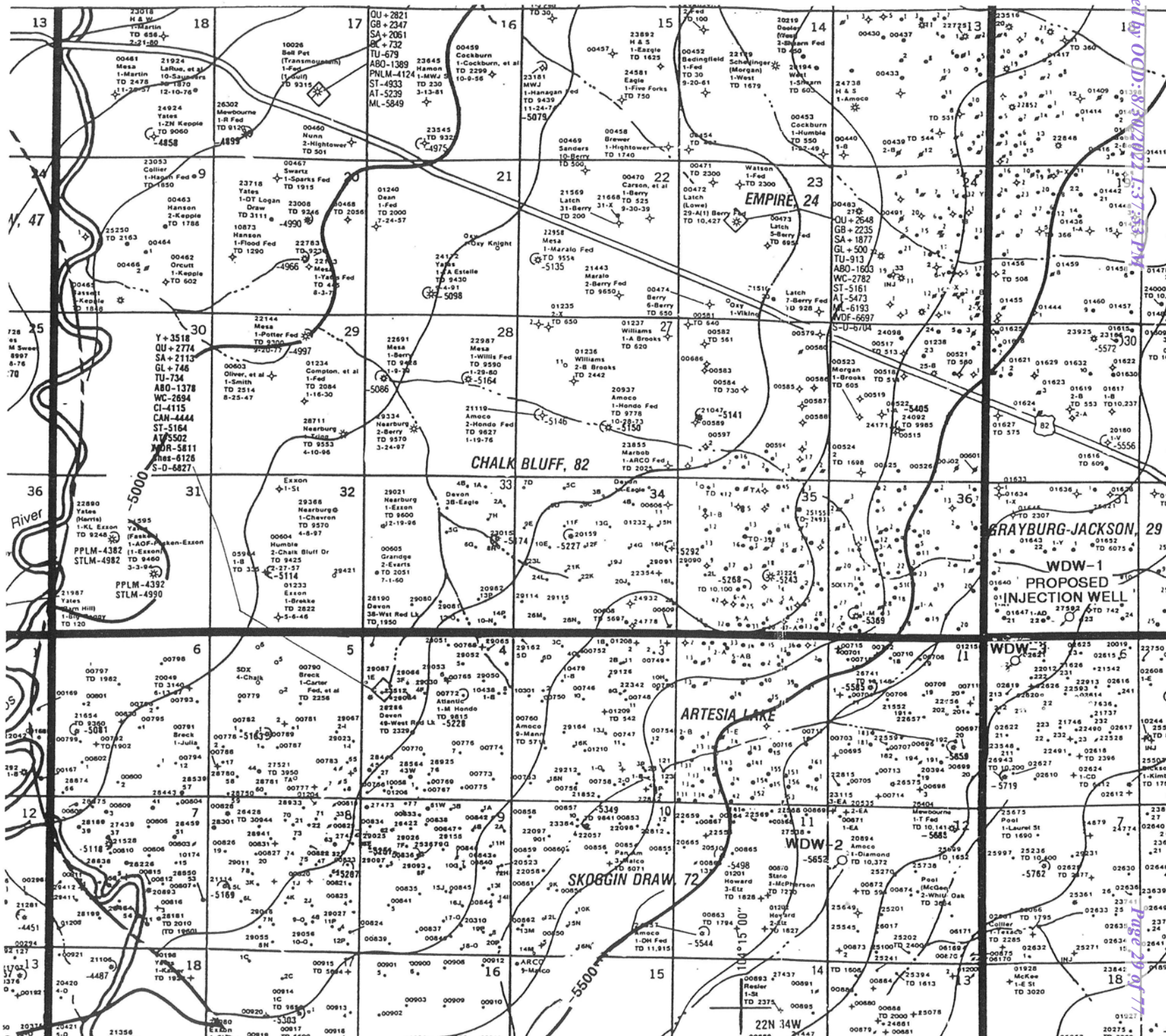
2022 FOT/MIT Report

Scale: NTS	Date: June 2022	
Fig_02_HF_Artesia_2022_WDW_01.pdf	By: WEK	Checked: LW

Petrotek
5935 South Zang Street, Suite 200
Littleton, Colorado 80127 USA
303-290-9414
www.petrotek.com







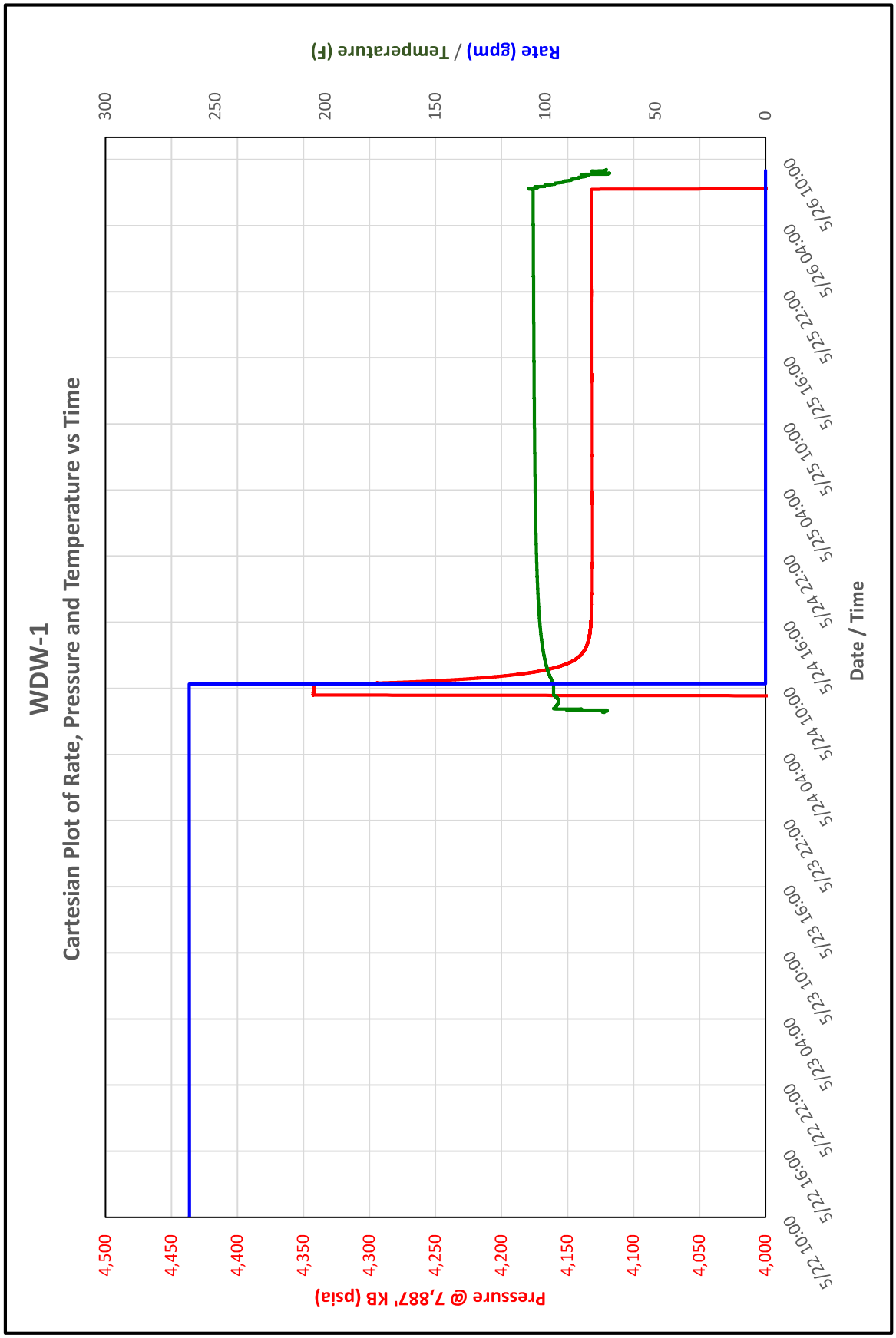


Figure 6
Cartesian Plot of Rate, Pressure and Temperature vs Time
2022 Well Testing

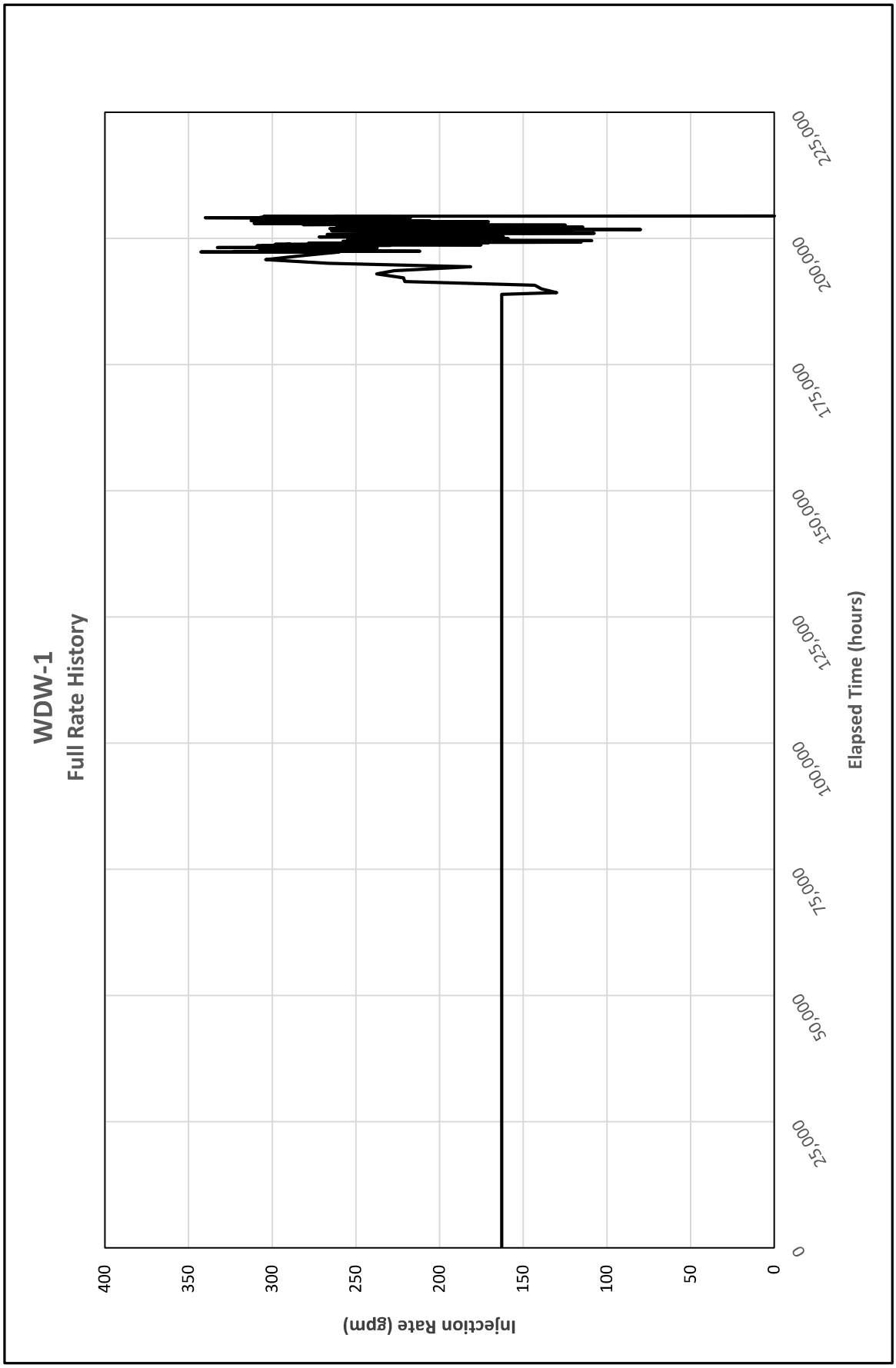


Figure 7
Full Rate History
2022 Well Testing

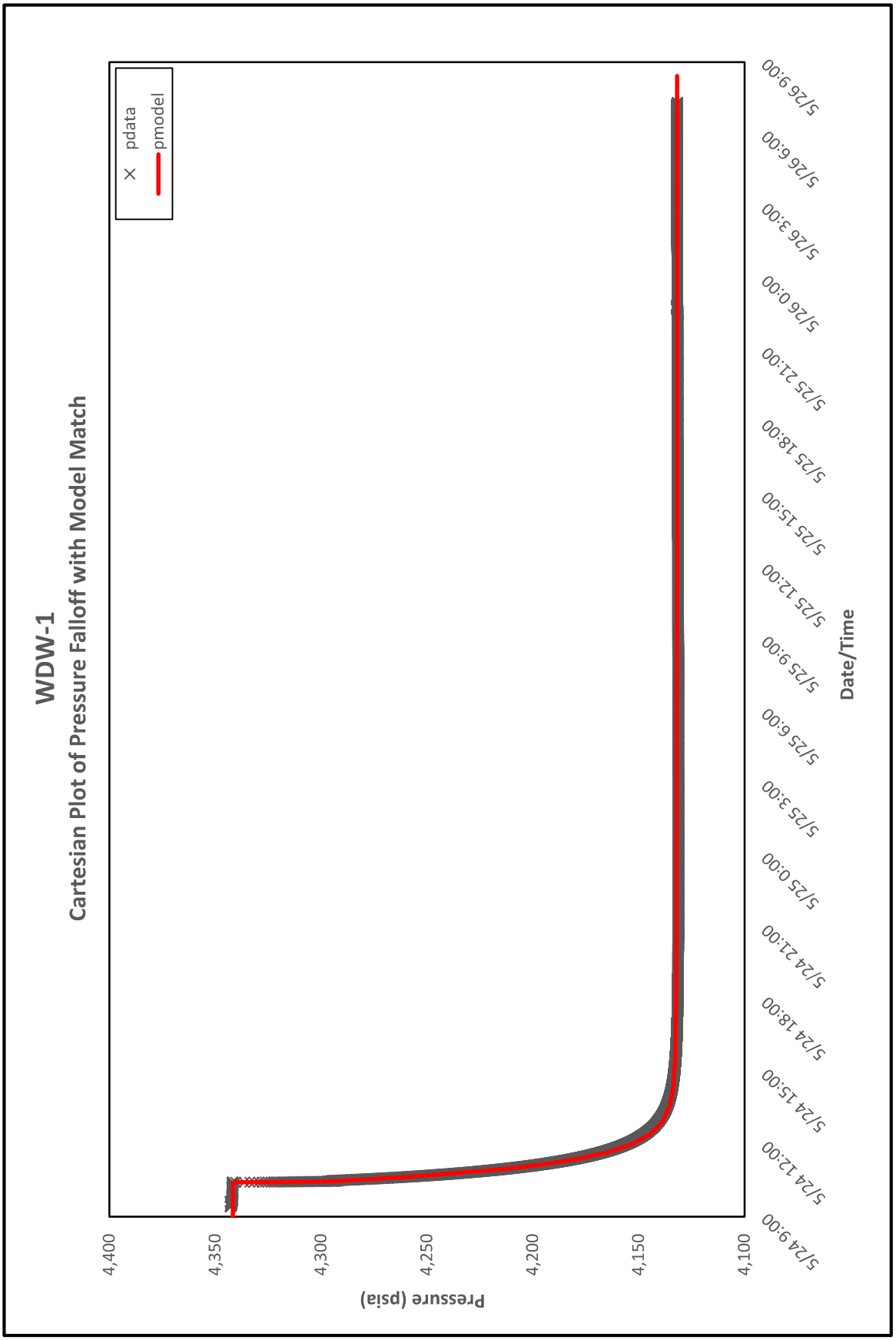


Figure 8
Cartesian Plot of Pressure Falloff with Model Match
2022 Well Testing

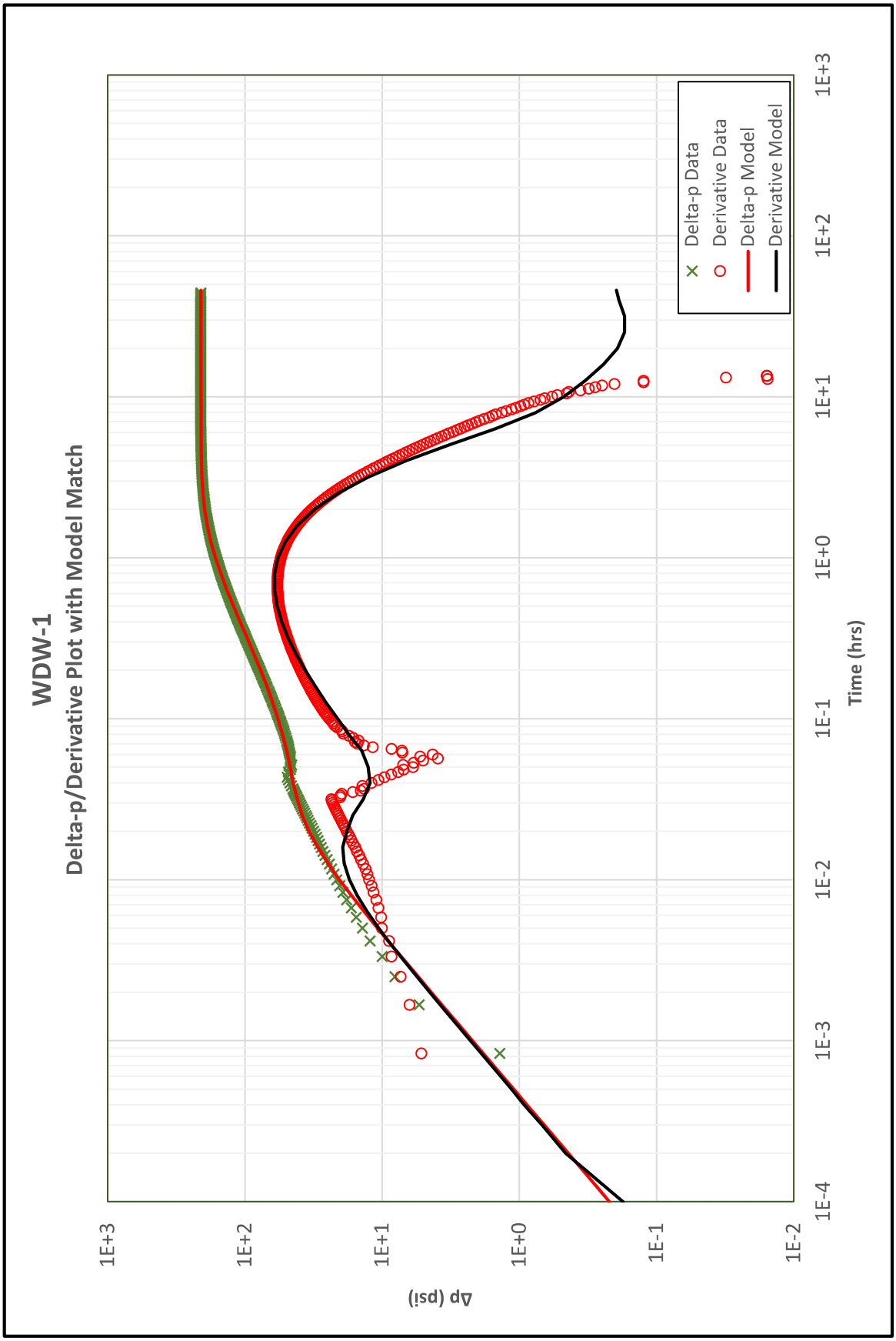


Figure 9
Log-log Derivative Plot with Model Match
2022 Well Testing

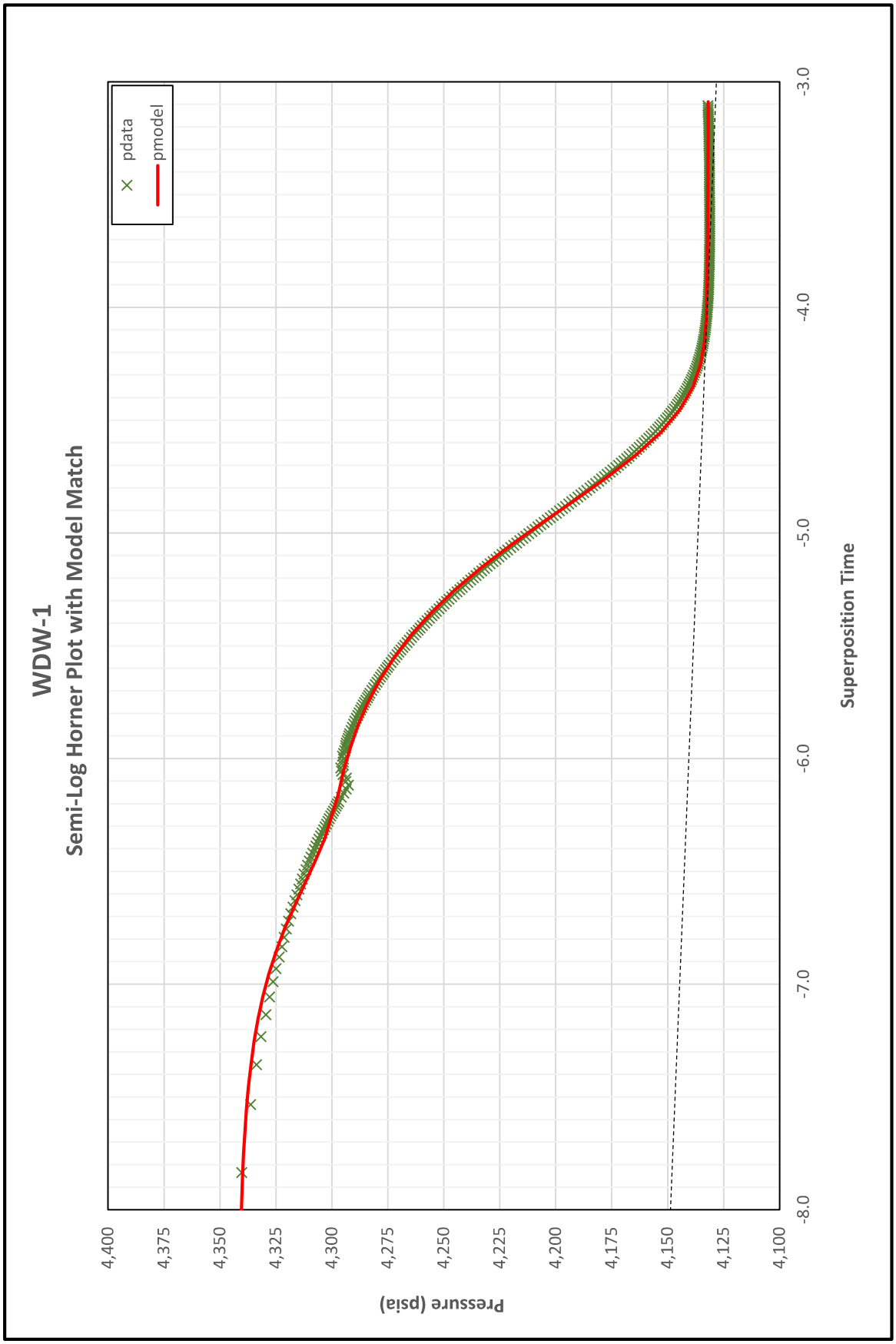


Figure 10
Semi-Log Horner Plot with Model Match
2022 Well Testing

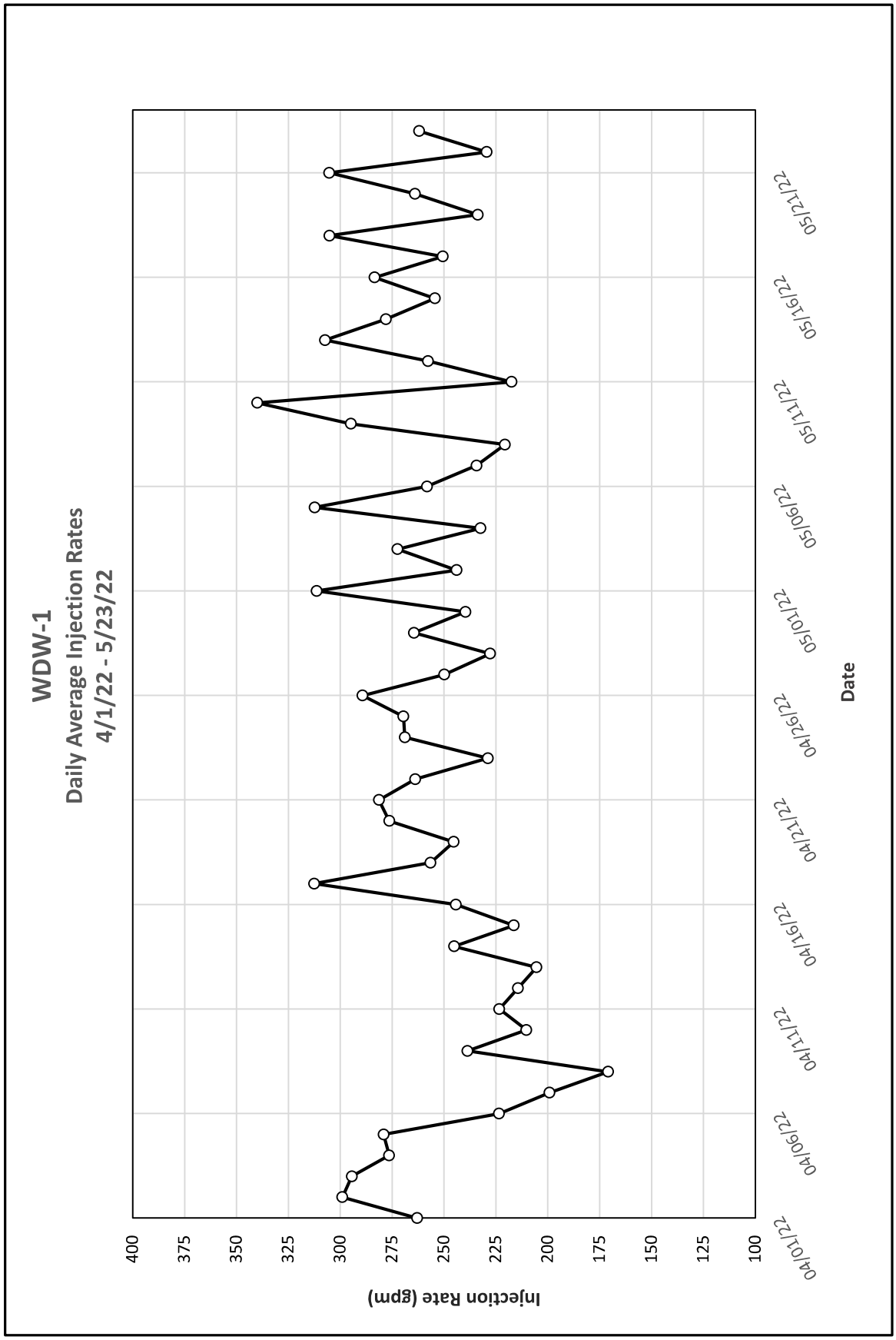


Figure 11
Daily Average Injection Rates for Month Prior to Test
2022 Well Testing

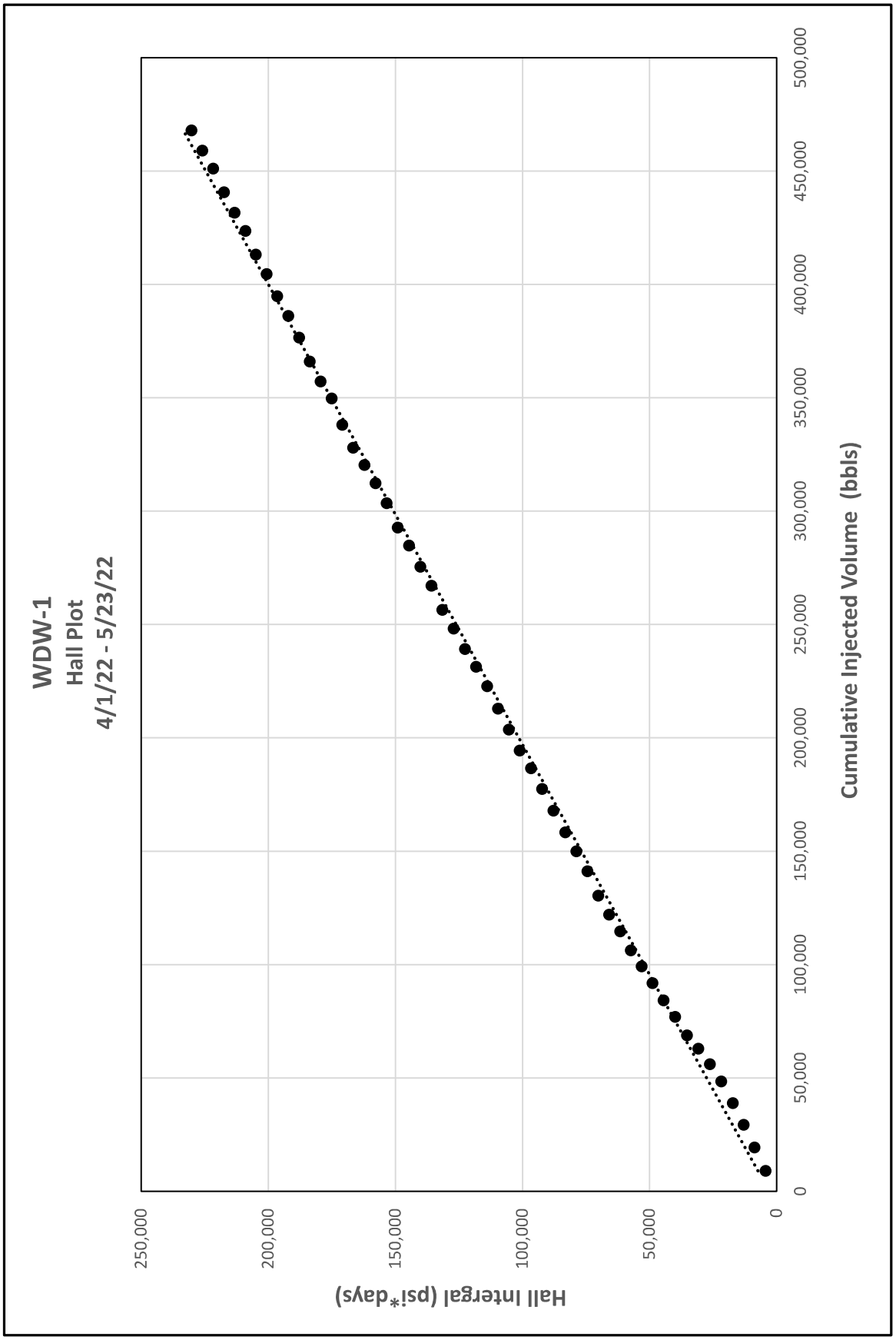
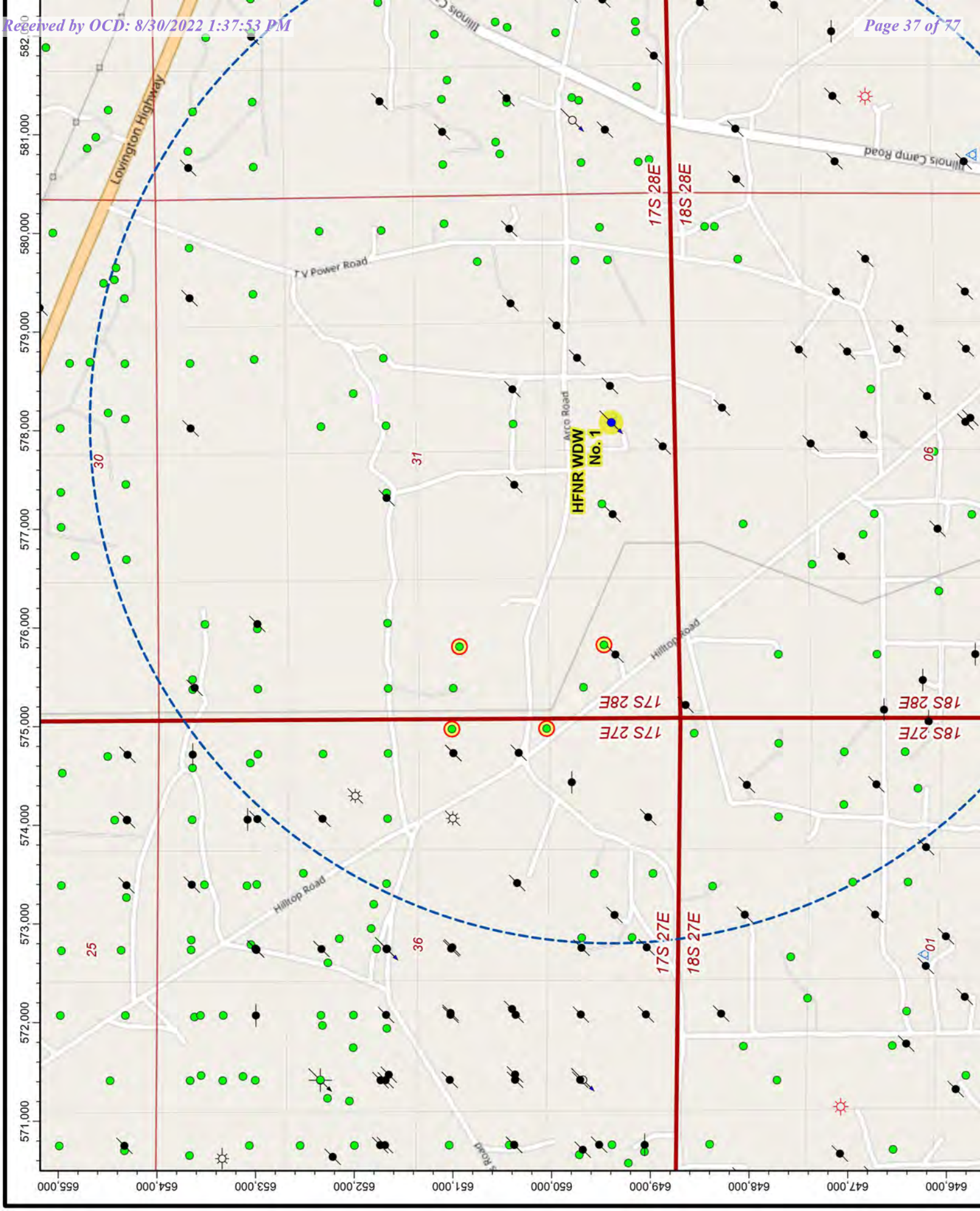


Figure 12
Hall Plot
2022 Well Testing


Lovington Highway
Illinois Camp Road
TV Power Road
Arco Road
Hilltop Road
HFNR WDW No. 1
17S 28E
18S 28E
17S 27E
18S 27E
30
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36
06
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ATTACHMENTS

Attachment 1
OCD Test Notification

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.
30-015-20894

5. Indicate Type of Lease
STATE ☐ FEE ☐

6. State Oil & Gas Lease No.
B-2071-28

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
CHUKKA WDW-2

1. Type of Well: Oil Well ☐ Gas Well ☒ Other: UIC INJECTION WELL

8. Well Number: WDW-2

2. Name of Operator
HF SINCLAIR NAVAJO REFINERY

9. OGRID Number: 15694

3. Address of Operator
P.O. BOX 159, ARTESIA, NM 88211-0159

10. Pool name or Wildcat
PENN 9681

4. Well Location
Unit Letter: E : 1980 feet from the NORTH line and 660 feet from the WEST line
Section: 12 Township: 18S Range : 27E NMPM County: EDDY

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)*
3,678' GL

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: ☒ PRESSURE FALL OFF TEST / MIT		OTHER: ☐	

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.

June 5th: Sunday: Day 1, Start constant rate injection into WDW-2, Chukka as well as the other three (3) offset wells for at least 30 hours prior to shut-in of WDW-2 for Fall Off Testing. Target rate for WDW-2 is approximately 160 gpm. Wellhead pressure will not exceed 1,400 psig. Plant personnel will record rate, volume and pressure during the constant-rate injection to ensure steady flow. Samples of the injectate will be collected approximately every 10 hours and analyzed for pH and specific gravity.

June 6th: Monday: Day 2, Continue constant injection rate into all four wells.

June 7th: Tuesday: Day 3 While injection continues, will run dual downhole memory gauges to test depth making flowing gradient stops every 1,000 feet. Collect pressure data at test depth for at least 1 hour while injecting at a constant rate. Shut in WDW-2 and collect Fall Off Data for a minimum of 30 hours. WDW-1, WDW-2 and WDW-4 will continue a constant injection rate until the Downhole Memory Gauges are retrieved.

June 8th: Wednesday: Day 4: WDW-2 is shut in and fall off data is being collected with the Downhole Memory Gauges.

June9th: Thursday: Day5: After the minimum of 30 hours of data collection, the gauges will be removed from the well making 5-minute gradient stops every 1,000 feet. Note the top of fill will be tagged either with the gauges prior to pulling them from the well, or a second run with sinker bars will be made after the tools are removed (TBD). Conduct MIT for a minimum of 30 minutes prior to rigging down. Rig down wireline and return well to service.

Spud Date: Rig Release Date:

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

SIGNATURE Lewis R Dade TITLE: ENV. SPEC DATE: 05/17/2022

Type or print name: LEWIS R. DADE E-mail address: Lewis.Dade@hollyfrontier.com PHONE: 575-746-5281

For State Use Only

APPROVED BY: TITLE DATE

Conditions of Approval (if any):

Attachment 2
Annulus Pressure TEST Gauge Certification

JMC INSTRUMENTS INC.
9829 E. Easter Ave. • Centennial, CO 80112
303.794.8833 • Fax 303.730.1220
Toll Free 1.800.327.7257
www.jmcinstruments.com

CERTIFIED CALIBRATION

CUSTOMER PETROTEK ORDER NO. _____

ITEM Digital Gauge RANGE 0-5000PSIG ITEM NO. 5284

TRUE VALUE	INDICATED VALUE	
PSIG	INCREASING READINGS	DECREASING READINGS
0.00	0	0
500.00	499.4	499.5
1000.00	998.9	999.1
1500.00	1498.5	1498.8
2000.00	1998.2	1998.4
2500.00	2497.7	2498.0
3000.00	2997.4	2997.6
3500.00	3497.0	3497.2
4000.00	3996.7	3996.5
4500.00	4496.5	4495.8
5000.00	4994.9	4994.9

Tested On: Deadweight Tester S/N# 1GA4474

Traceable to National Institute of Standards and Technology certificate # 17-043

Tested By: Brian McLain Date 22 November 2021

Remarks:

Crystal/AMETEK	XP2i	SN 901241
Accuracy is +/-	.25	% of Full Scale or Better
Test Conditions	65 °F; 617	mmHg Atm. Pressure

Attachment 3
Downhole Pressure Gauge Certification

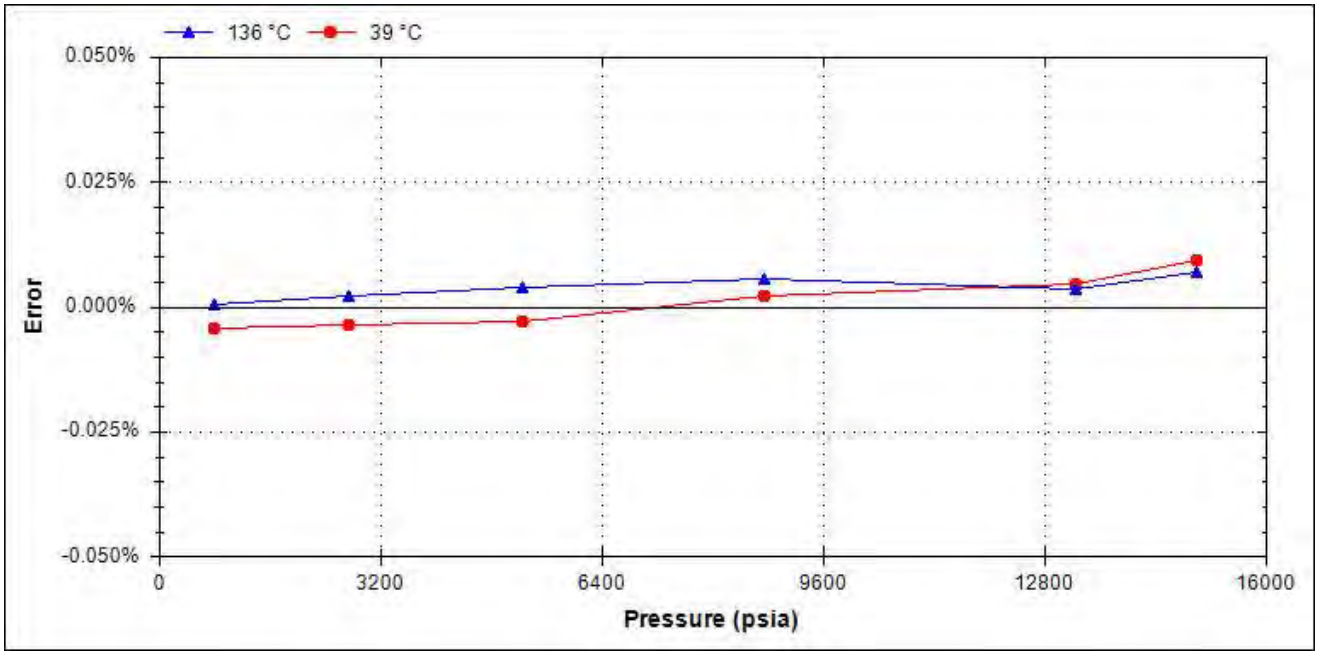
DataCan

"The Next Generation of Down Hole Tools"

Calibration Date:	28-May-21	**Calibration System:**	CALIBRATION03
Max Pressure Error:	0.010% F.S.	**Batch Number:**	20210104.143132
Max Temperature Error:	0.119 °C		
Part Number:	101696		
Serial Number:	224798		

1.25 OD Quartz DXB 2 Assembly			
Max Pressure		Max Temperature	
psi	kPa	ºF	ºC
16,000	110,316	351	177

Accuracy: As shown in the graph below, this DataCan Pressure gauge conforms to within +/- 0.030% F.S. of the pressure standard used in calibration, which is accurate to within +/- 0.01% of reading.



Working Standards

Sun Electronic Systems Environmental Chamber, Model: EC127, Serial: EC0020
DHI Instruments Pressure Controller, Model: PPCH-200M (30,000psi Reference), Serial: 1529

Traceability Statement

All working standards are traceable to nationally or internationally recognized standards.

Approved By:
DataCan Services Corp.

Calibrated By:
Angelo Pulido

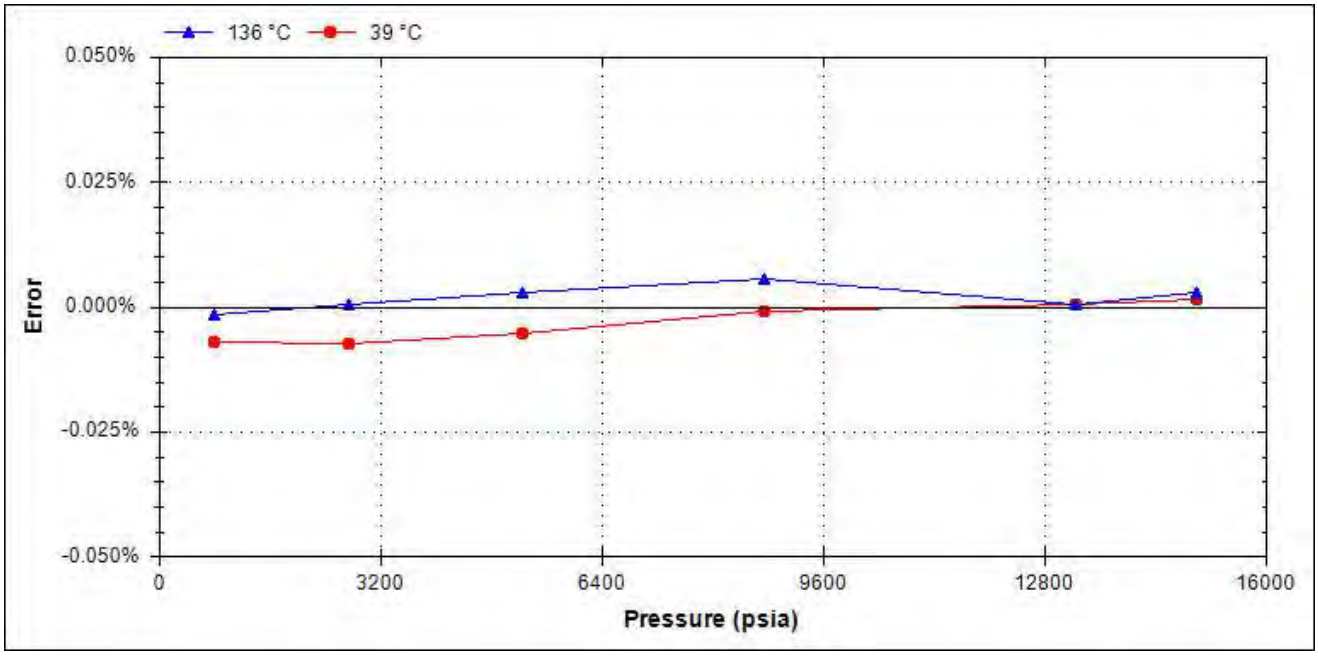
DataCan

"The Next Generation of Down Hole Tools"

Calibration Date:	28-May-21	**Calibration System:**	CALIBRATION03
Max Pressure Error:	0.010% F.S.	**Batch Number:**	20210104.143132
Max Temperature Error:	0.110 °C		
Part Number:	101696		
Serial Number:	224831		

1.25 OD Quartz DXB 2 Assembly			
Max Pressure		Max Temperature	
psi	kPa	ºF	ºC
16,000	110,316	351	177

Accuracy: As shown in the graph below, this DataCan Pressure gauge conforms to within +/- 0.030% F.S. of the pressure standard used in calibration, which is accurate to within +/- 0.01% of reading.



Working Standards

Sun Electronic Systems Environmental Chamber, Model: EC127, Serial: EC0020
DHI Instruments Pressure Controller, Model: PPCH-200M (30,000psi Reference), Serial: 1529

Traceability Statement

All working standards are traceable to nationally or internationally recognized standards.

Approved By:
DataCan Services Corp.

Calibrated By:
Angelo Pulido

Attachment 4
FESCO Injection Falloff Test Report

FESCO, Ltd.

1000 Fesco Ave. - Alice, Texas 78332

FLOWING GRADIENT SURVEY

Company:	Petrotek Corporation	Test Date:	05/24/2022
Well:	Navajo Refining Waste Disposal Well No. 1	Location:	Eddy County, NM
Field:	Davonia	Status:	Injecting water
Formation:	Unavailable		

Well Data:	Wellhead Connection: 4-1/16" 3k Flange	Gauge Type:	Electronic
	Elevation: 13 ft above GL	Gauge SN:	SP-224831
	Tubing: 4.5" Set at 7879 ft (EOT)	Gauge Range:	16000 psi
	Casing: 7" Set at 9094 ft	Gauge OD:	1.2500"
	Perfs: 7924 - 8188; 8220 - 8476 ft (MD		
	Datum: 8200 ft (MD)		

Depth			Pressure					
MD ft	TVD ft	Delta Depth ft	WHP psig	BHT °F	Gauge Pressure psig	Delta Pressure psi	Pressure Gradient psi / ft	Comments
0	0	0	970	83.80	968.04	0.00	0.0000	
1000	1000	1000		95.73	1402.02	433.98	0.4340	
2000	2000	1000		94.94	1827.52	425.50	0.4255	
3000	3000	1000		94.39	2254.59	427.07	0.4271	
4000	4000	1000		94.16	2680.27	425.68	0.4257	
5000	5000	1000		94.28	3105.71	425.44	0.4254	
6000	6000	1000		94.74	3532.60	426.89	0.4269	
7000	7000	1000		95.57	3961.21	428.61	0.4286	
7887	7887	887	970	96.42	4342.37	381.16	0.4297	

BHT at Test Depth:	96.42 °F	Oil Level:	Injecting	Previous BHP:	U/A
Extrapolated BHP at Datum:	4476.87 psig	Water Level:	Injecting	BHP Change:	U/A
BHP Gradient at Datum :	0.4297 psi/ft	Csg Press:	N/A		

Remarks: RIH with electronic gauge making injecting gradient stops to 7887 ft. Flow well for 1 hrs. SI well for 44.8 hr falloff test. POOH making static gradient stops to surface. RDMO.

Certified: FESCO, Ltd. - Midland, TX

By: Michael Carnes
District Manager - (432) 332-3211

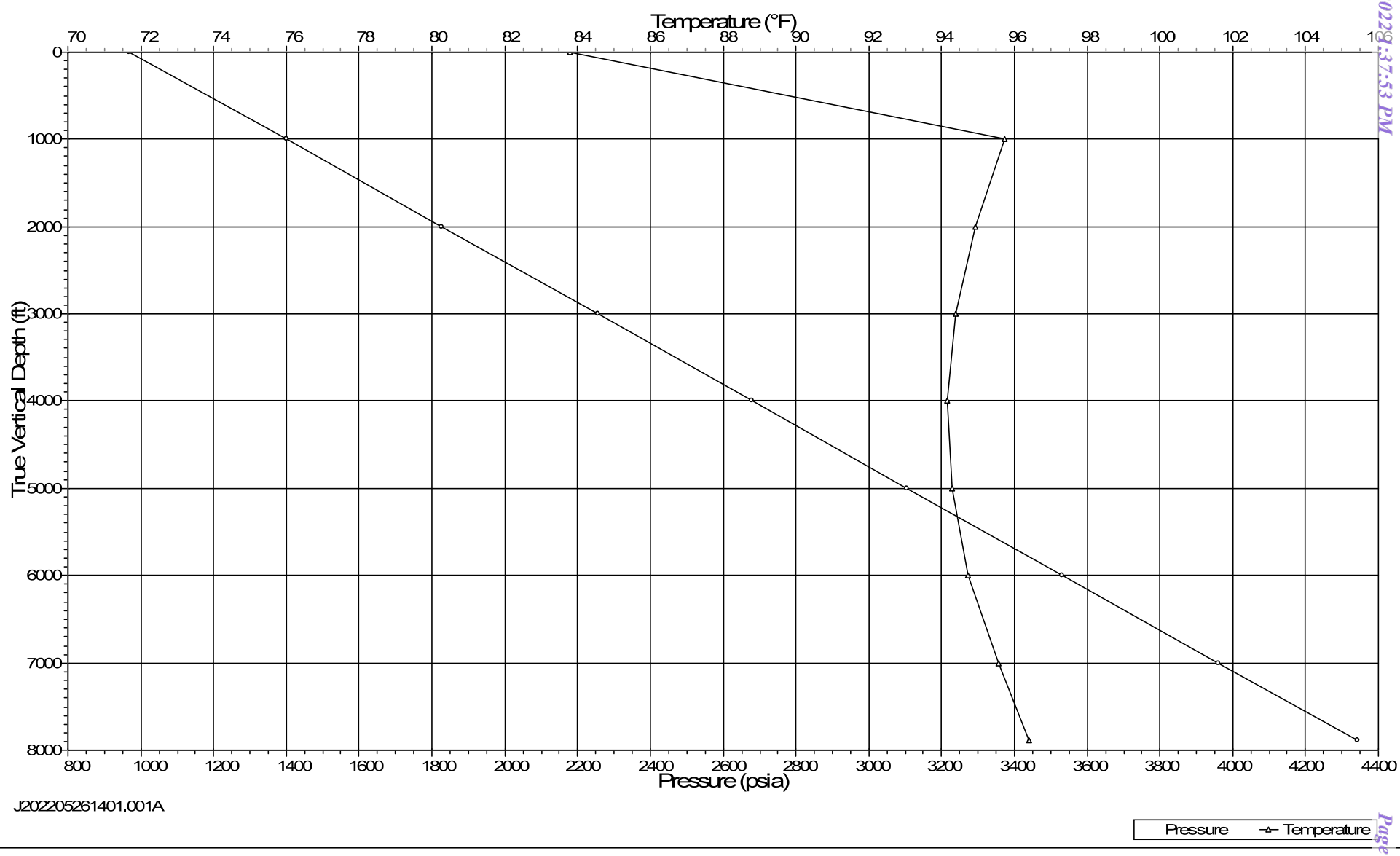
Job No.: J202205261401.001A

Petrotek Corporation

Flowing Gradient Plot

Well: Navajo Refining Waste Disposal Well No. 1
Field: Davonia
Test Date: 05/24/2022

Gauge Type: Electronic
Gauge Range: 16000 psi
Gauge SN: SP-224831



J202205261401.001A

FESCO, Ltd.

1000 Fesco Ave. - Alice, Texas 78332

STATIC GRADIENT SURVEY

Company:	Petrotek Corporation	Test Date:	05/26/2022
Well:	Navajo Refining Waste Disposal Well No. 1	Location:	Eddy County, NM
Field:	Davonia	Status:	SI for 44.8 hrs
Formation:	Unavailable		

Well Data:	Wellhead Connection: 4-1/16" 3k Flange	Gauge Type:	Electronic
	Elevation: 13 ft above GL	Gauge SN:	SP-224831
	Tubing: 4.5" Set at 7879 ft (EOT)	Gauge Range:	16000 psi
	Casing: 7" Set at 9094 ft	Gauge OD:	1.2500"
	Perfs: 7924 - 8188; 8220 - 8476 ft (MD		
	Datum: 8200 ft (MD)		

Depth			Pressure					
MD ft	TVD ft	Delta Depth ft	WHP psig	BHT °F	Gauge Pressure psig	Delta Pressure psi	Pressure Gradient psi / ft	Comments
0	0	0	720	71.40	722.45	0.00	0.0000	Water Level at surface.
1000	1000	1000		81.71	1154.58	432.13	0.4321	
2000	2000	1000		84.89	1586.20	431.62	0.4316	
3000	3000	1000		88.34	2017.77	431.57	0.4316	
4000	4000	1000		91.71	2450.60	432.83	0.4328	
5000	5000	1000		95.75	2882.78	432.18	0.4322	
6000	6000	1000		100.21	3314.97	432.19	0.4322	
7000	7000	1000		103.77	3747.28	432.31	0.4323	
7887	7887	887		105.72	4131.71	384.43	0.4334	Water gradient to 7887 ft.

BHT at Test Depth:	105.72 °F	Oil Level:	None	Previous BHP:	U/A
Extrapolated BHP at Datum:	4267.36 psig	Water Level:	Surface	BHP Change:	U/A
BHP Gradient at Datum :	0.4334 psi/ft	Csg Press:	N/A		

Remarks: RIH with electronic gauge making injecting gradient stops to 7887 ft. Flow well for 1 hrs. SI well for 44.8 hr falloff test. POOH making static gradient stops to surface. RDMO.

Certified: FESCO, Ltd. - Midland, TX

By: Michael Carnes
District Manager - (432) 332-3211

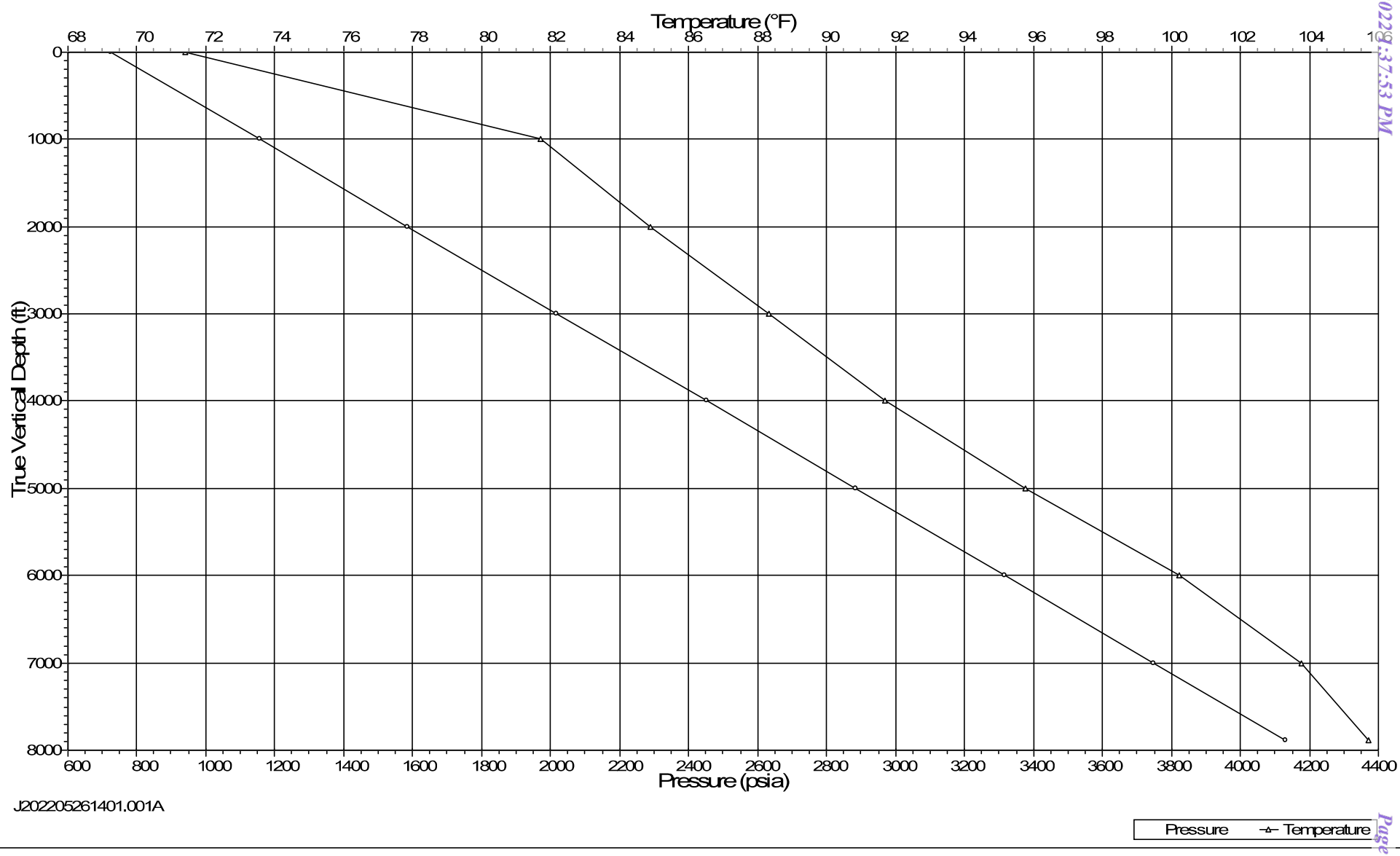
Job No.: J202205261401.001A

Petrotek Corporation

Well: Navajo Refining Waste Disposal Well No. 1
Field: Davonia
Test Date: 05/26/2022

Gauge Type: Electronic
Gauge Range: 16000 psi
Gauge SN: SP-224831

Static Gradient Plot



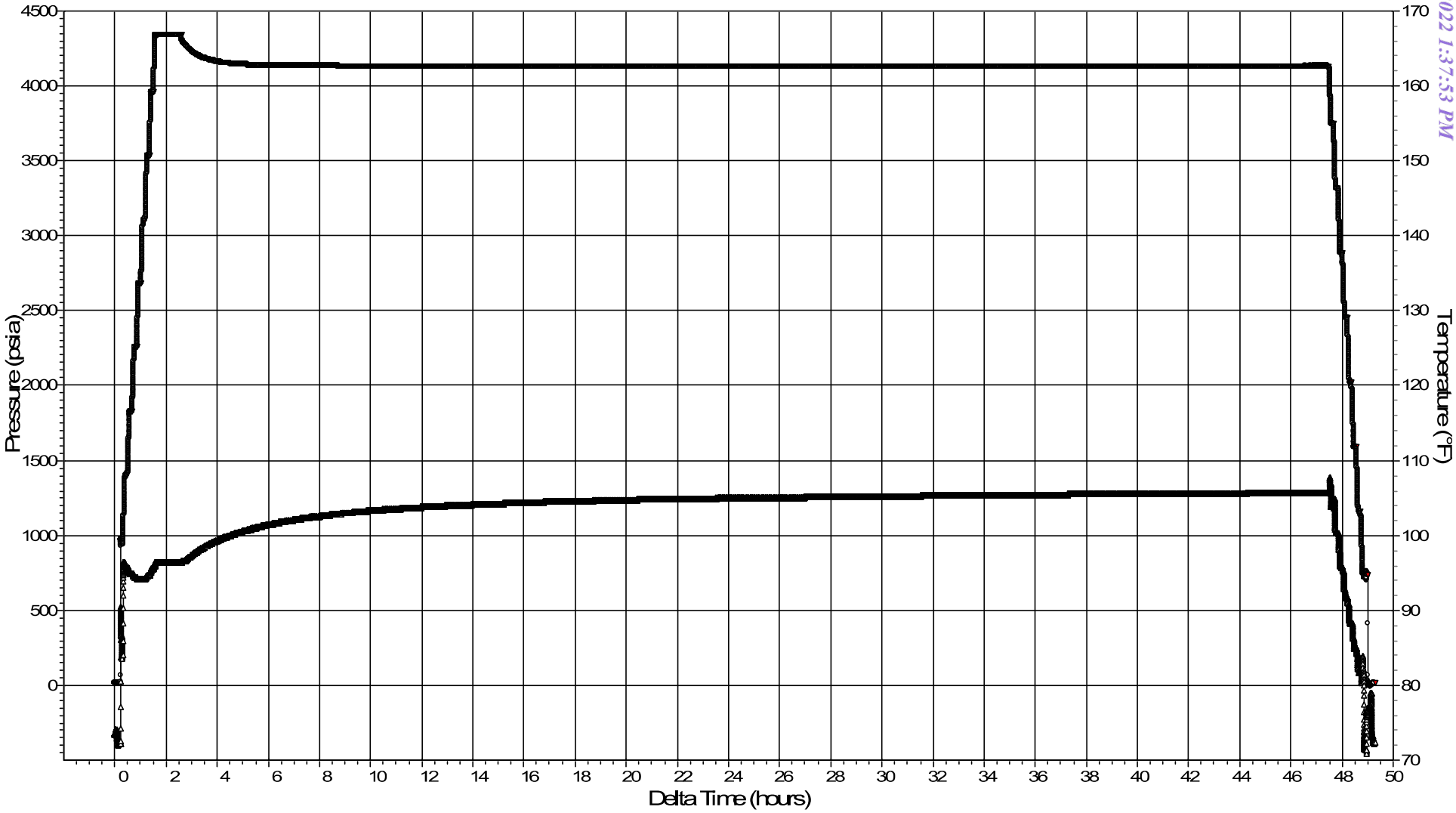
J202205261401.001A

Petrotek Corporation

Well: Navajo Refining Waste Disposal Well No. 1
Field: Davonia
Test Date: 05/26 - 05/28/2022

Gauge Type: Electronic
Gauge Range: 16000 psi
Gauge SN: SP-224831

Cartesian Plot



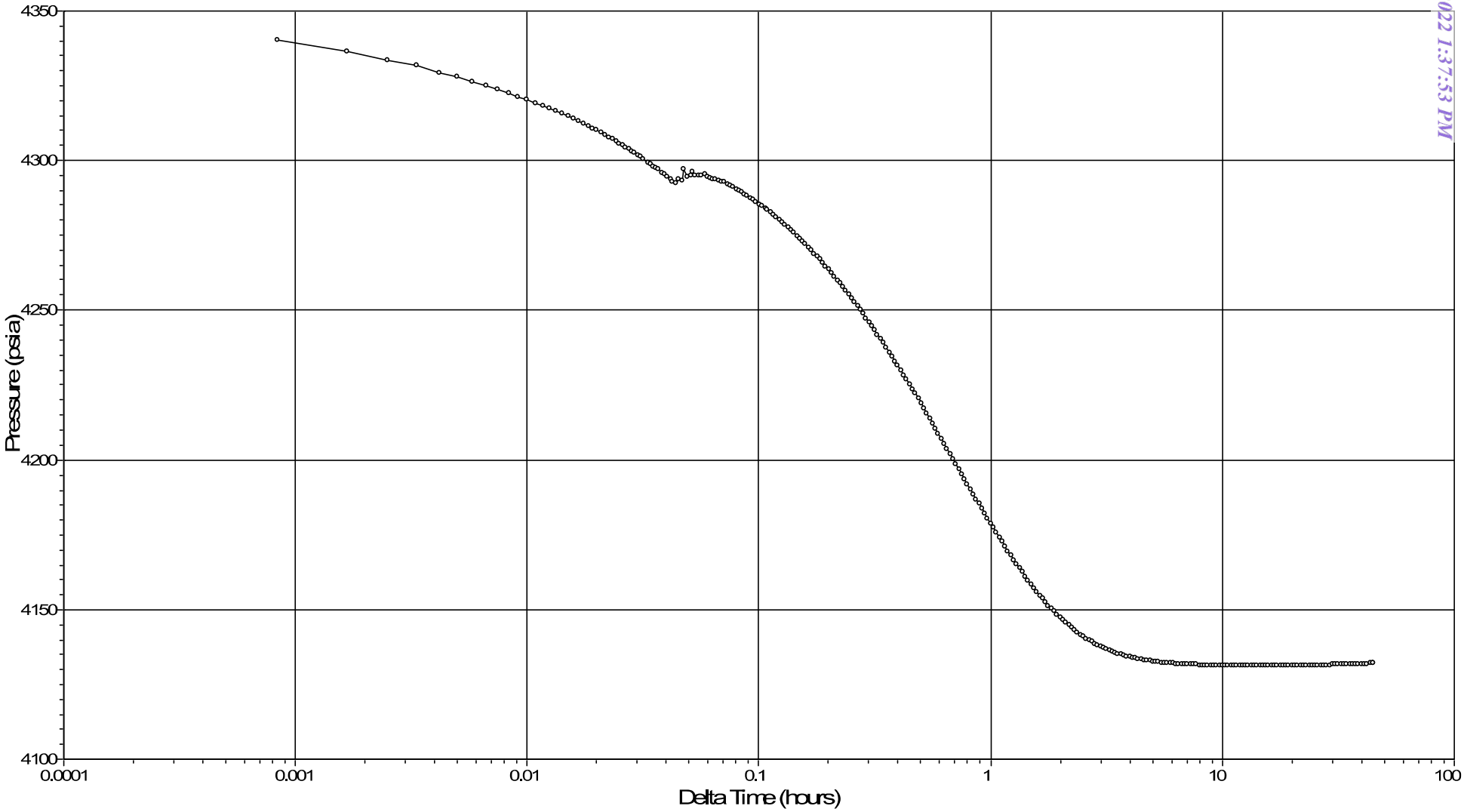
J202205261401.001A

Petrotek Corporation

Well: Navajo Refining Waste Disposal Well No. 1
Field: Davonia
Test Date: 05/24 - 05/26/2022

Gauge Type: Electronic
Gauge Range: 16000 psi
Gauge SN: SP-224831

Semilog Plot (Falloff Test)



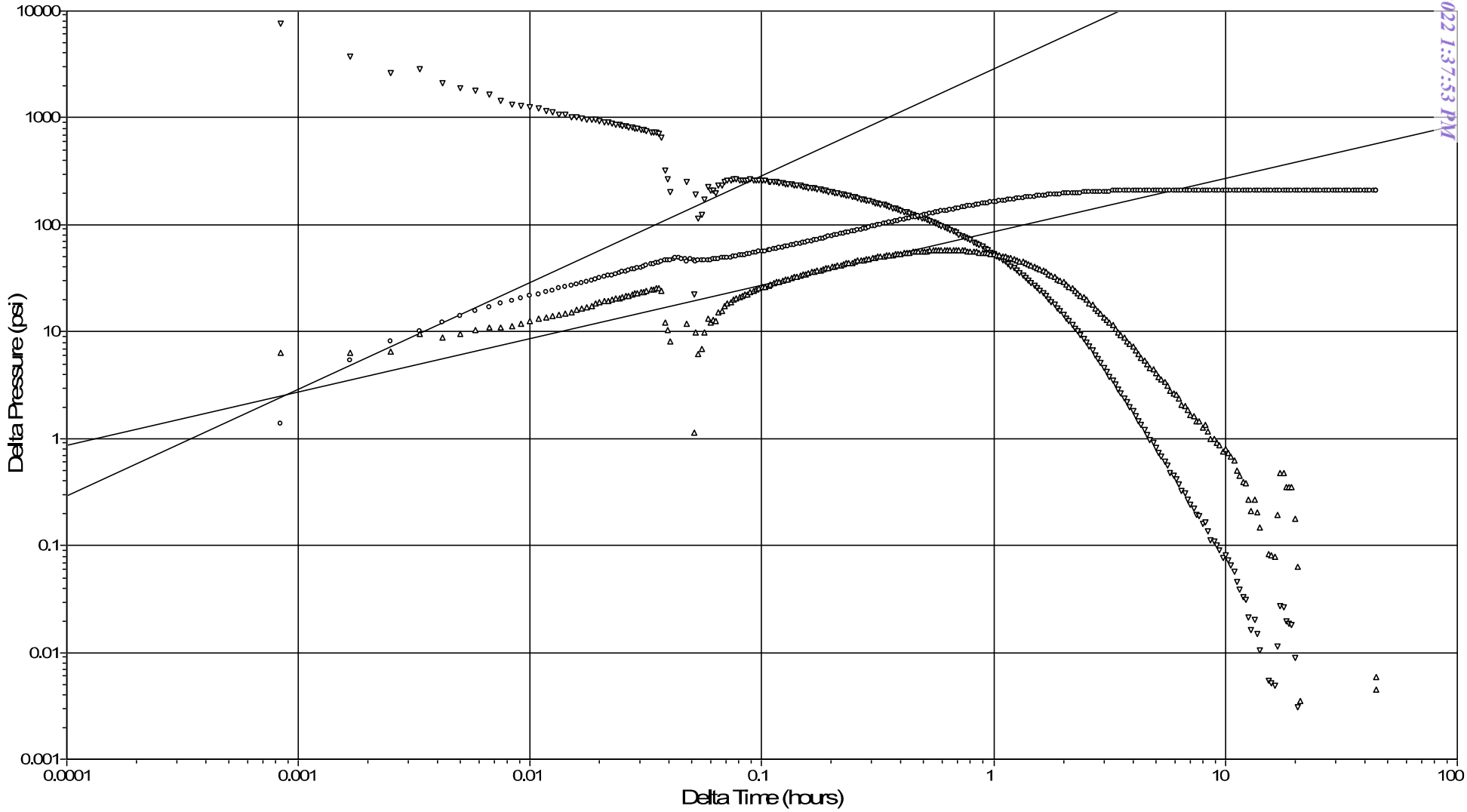
J202205261401.001A

Petrotek Corporation

Well: Navajo Refining Waste Disposal Well No. 1
Field: Davonia
Test Date: 05/24 - 05/26/2022

Gauge Type: Electronic
Gauge Range: 16000 psi
Gauge SN: SP-224831

Log Plot (Falloff Test)



FESCO, Ltd.

1000 Fesco Ave. - Alice, Texas 78332

RESERVOIR PRESSURE FALLOFF TEST

Company:	Petrotek Corporation	Test Date:	05/24 - 05/26/2022
Well:	Navajo Refining Waste Disposal Well No. 1	Gauge Depth:	7887 ft
Field:	Davonia	Gauge Type:	Electronic
Location:	Eddy County, NM	Gauge SN:	SP-224831
Perfs:	7924 - 8188; 8220 - 8476 ft (MD)	Gauge Range:	16000 psi
Formation:	Unavailable	Gauge OD:	1.2500"

Test Date mm/dd/yy	Real Time hh:mm:ss	Delta Time hours	WHP psia	BHP psia	Delta BHP psi	Temp. °F	Comments
05/24/22	08:49:29	-2.60528		18.83		73.46	Powered up gauge.
05/24/22	08:50:00	-2.59667		18.98		73.48	
05/24/22	08:55:00	-2.51333		17.82		73.21	
05/24/22	09:00:00	-2.43000		17.66		72.17	
05/24/22	09:02:00	-2.39667		17.66		72.13	
05/24/22	09:02:54	-2.38167		968.60		90.42	Pressured up lubricator.
05/24/22	09:03:00	-2.38000		968.26		90.29	
05/24/22	09:04:00	-2.36333		971.12		87.88	
05/24/22	09:05:00	-2.34667		970.45		86.24	
05/24/22	09:06:00	-2.33000		969.03		84.88	
05/24/22	09:07:00	-2.31333		968.70		84.00	
05/24/22	09:07:24	-2.30667		968.12		83.82	Casing Pressure = N/A
05/24/22	09:07:27	-2.30583	970	968.04		83.80	RIH making injecting gradient survey stops.
05/24/22	09:08:00	-2.29667		969.01		93.81	
05/24/22	09:09:00	-2.28000		1035.67		95.90	
05/24/22	09:10:00	-2.26333		1099.30		96.41	
05/24/22	09:11:00	-2.24667		1165.45		96.35	
05/24/22	09:12:00	-2.23000		1241.66		96.20	
05/24/22	09:13:00	-2.21333		1328.35		96.00	
05/24/22	09:14:00	-2.19667		1403.50		95.79	Arrived at 1000 ft stop.
05/24/22	09:15:00	-2.18000		1402.21		95.77	
05/24/22	09:16:00	-2.16333		1403.01		95.77	
05/24/22	09:17:00	-2.14667		1401.64		95.59	
05/24/22	09:18:00	-2.13000		1401.61		95.71	
05/24/22	09:19:00	-2.11333		1401.29		95.73	
05/24/22	09:19:12	-2.11000		1402.02		95.73	Left 1000 ft stop.
05/24/22	09:20:00	-2.09667		1444.99		95.68	
05/24/22	09:21:00	-2.08000		1516.61		95.53	
05/24/22	09:22:00	-2.06333		1602.71		95.35	
05/24/22	09:23:00	-2.04667		1690.51		95.19	
05/24/22	09:24:00	-2.03000		1781.69		95.05	
05/24/22	09:24:45	-2.01750		1827.85		94.99	Arrived at 2000 ft stop.
05/24/22	09:25:00	-2.01333		1827.81		94.97	
05/24/22	09:26:00	-1.99667		1827.61		94.92	
05/24/22	09:27:00	-1.98000		1828.89		94.93	
05/24/22	09:28:00	-1.96333		1828.26		94.93	
05/24/22	09:29:00	-1.94667		1828.13		94.94	
05/24/22	09:29:51	-1.93250		1827.52		94.94	Left 2000 ft stop.

FESCO, Ltd.

1000 Fesco Ave. - Alice, Texas 78332

RESERVOIR PRESSURE FALLOFF TEST

Company:	Petrotek Corporation	Test Date:	05/24 - 05/26/2022
Well:	Navajo Refining Waste Disposal Well No. 1	Gauge Depth:	7887 ft
Field:	Davonia	Gauge Type:	Electronic
Location:	Eddy County, NM	Gauge SN:	SP-224831
Perfs:	7924 - 8188; 8220 - 8476 ft (MD)	Gauge Range:	16000 psi
Formation:	Unavailable	Gauge OD:	1.2500"

Test Date mm/dd/yy	Real Time hh:mm:ss	Delta Time hours	WHP psia	BHP psia	Delta BHP psi	Temp. °F	Comments
05/24/22	09:30:00	-1.93000		1834.39		94.94	
05/24/22	09:31:00	-1.91333		1889.61		94.88	
05/24/22	09:32:00	-1.89667		1966.18		94.77	
05/24/22	09:33:00	-1.88000		2050.30		94.67	
05/24/22	09:34:00	-1.86333		2137.17		94.55	
05/24/22	09:35:00	-1.84667		2219.20		94.45	
05/24/22	09:35:39	-1.83583		2254.82		94.41	Arrived at 3000 ft stop.
05/24/22	09:36:00	-1.83000		2255.24		94.39	
05/24/22	09:37:00	-1.81333		2256.70		94.39	
05/24/22	09:38:00	-1.79667		2254.88		94.39	
05/24/22	09:39:00	-1.78000		2255.30		94.39	
05/24/22	09:40:00	-1.76333		2254.79		94.39	
05/24/22	09:40:45	-1.75083		2254.59		94.39	Left 3000 ft stop.
05/24/22	09:41:00	-1.74667		2267.22		94.39	
05/24/22	09:42:00	-1.73000		2341.05		94.34	
05/24/22	09:43:00	-1.71333		2428.49		94.27	
05/24/22	09:44:00	-1.69667		2516.09		94.22	
05/24/22	09:45:00	-1.68000		2609.05		94.19	
05/24/22	09:45:57	-1.66417		2680.68		94.17	Arrived at 4000 ft stop.
05/24/22	09:46:00	-1.66333		2681.23		94.17	
05/24/22	09:47:00	-1.64667		2681.27		94.16	
05/24/22	09:48:00	-1.63000		2680.51		94.16	
05/24/22	09:49:00	-1.61333		2680.48		94.16	
05/24/22	09:50:00	-1.59667		2680.94		94.16	
05/24/22	09:50:57	-1.58083		2680.27		94.16	Left 4000 ft stop.
05/24/22	09:51:00	-1.58000		2680.96		94.16	
05/24/22	09:52:00	-1.56333		2748.72		94.16	
05/24/22	09:53:00	-1.54667		2838.88		94.17	
05/24/22	09:54:00	-1.53000		2941.27		94.19	
05/24/22	09:55:00	-1.51333		3050.73		94.23	
05/24/22	09:55:45	-1.50083		3105.66		94.27	Arrived at 5000 ft stop.
05/24/22	09:56:00	-1.49667		3106.26		94.28	
05/24/22	09:57:00	-1.48000		3106.52		94.28	
05/24/22	09:58:00	-1.46333		3106.28		94.28	
05/24/22	09:59:00	-1.44667		3106.07		94.28	
05/24/22	10:00:00	-1.43000		3106.23		94.28	
05/24/22	10:00:54	-1.41500		3105.71		94.28	Left 5000 ft stop.
05/24/22	10:01:00	-1.41333		3112.66		94.28	

FESCO, Ltd.

1000 Fesco Ave. - Alice, Texas 78332

RESERVOIR PRESSURE FALLOFF TEST

Company: Petrotek Corporation
Well: Navajo Refining Waste Disposal Well No. 1
Field: Davonia
Location: Eddy County, NM
Perfs: 7924 - 8188; 8220 - 8476 ft (MD)
Formation: Unavailable

Test Date: 05/24 - 05/26/2022
Gauge Depth: 7887 ft
Gauge Type: Electronic
Gauge SN: SP-224831
Gauge Range: 16000 psi
Gauge OD: 1.2500"

Test Date mm/dd/yy	Real Time hh:mm:ss	Delta Time hours	WHP psia	BHP psia	Delta BHP psi	Temp. °F	Comments
05/24/22	10:02:00	-1.39667		3203.72		94.34	
05/24/22	10:03:00	-1.38000		3299.69		94.43	
05/24/22	10:04:00	-1.36333		3402.53		94.53	
05/24/22	10:05:00	-1.34667		3504.87		94.66	
05/24/22	10:05:27	-1.33917		3533.02		94.71	Arrived at 6000 ft stop.
05/24/22	10:06:00	-1.33000		3533.14		94.74	
05/24/22	10:07:00	-1.31333		3533.09		94.74	
05/24/22	10:08:00	-1.29667		3532.85		94.74	
05/24/22	10:09:00	-1.28000		3532.79		94.74	
05/24/22	10:10:00	-1.26333		3532.65		94.74	
05/24/22	10:10:33	-1.25417		3532.60		94.74	Left 6000 ft stop.
05/24/22	10:11:00	-1.24667		3561.61		94.76	
05/24/22	10:12:00	-1.23000		3653.59		94.89	
05/24/22	10:13:00	-1.21333		3758.79		95.06	
05/24/22	10:14:00	-1.19667		3855.24		95.27	
05/24/22	10:15:00	-1.18000		3944.28		95.49	
05/24/22	10:15:18	-1.17500		3961.28		95.53	Arrived at 7000 ft stop.
05/24/22	10:16:00	-1.16333		3961.24		95.56	
05/24/22	10:17:00	-1.14667		3961.18		95.57	
05/24/22	10:18:00	-1.13000		3961.24		95.57	
05/24/22	10:19:00	-1.11333		3961.09		95.57	
05/24/22	10:20:00	-1.09667		3960.98		95.57	
05/24/22	10:20:18	-1.09167		3961.21		95.57	Left 7000 ft stop.
05/24/22	10:21:00	-1.08000		4018.37		95.63	
05/24/22	10:22:00	-1.06333		4120.60		95.84	
05/24/22	10:23:00	-1.04667		4221.30		96.07	
05/24/22	10:24:00	-1.03000		4304.85		96.28	
05/24/22	10:24:36	-1.02000	970	4342.50		96.38	Softset gauge at 7887 ft.
05/24/22	10:25:00	-1.01333		4342.76		96.41	
05/24/22	10:26:00	-0.99667		4342.75		96.42	
05/24/22	10:27:00	-0.98000		4342.52		96.42	
05/24/22	10:28:00	-0.96333		4342.48		96.42	
05/24/22	10:29:00	-0.94667		4342.48		96.42	
05/24/22	10:30:00	-0.93000	970	4342.37		96.42	7887 ft stop.
05/24/22	10:31:00	-0.91333		4342.47		96.42	
05/24/22	10:32:00	-0.89667		4342.41		96.42	
05/24/22	10:33:00	-0.88000		4342.31		96.42	
05/24/22	10:34:00	-0.86333		4342.36		96.42	

FESCO, Ltd.

1000 Fesco Ave. - Alice, Texas 78332

RESERVOIR PRESSURE FALLOFF TEST

Company:	Petrotek Corporation	Test Date:	05/24 - 05/26/2022
Well:	Navajo Refining Waste Disposal Well No. 1	Gauge Depth:	7887 ft
Field:	Davonia	Gauge Type:	Electronic
Location:	Eddy County, NM	Gauge SN:	SP-224831
Perfs:	7924 - 8188; 8220 - 8476 ft (MD)	Gauge Range:	16000 psi
Formation:	Unavailable	Gauge OD:	1.2500"

Test Date mm/dd/yy	Real Time hh:mm:ss	Delta Time hours	WHP psia	BHP psia	Delta BHP psi	Temp. °F	Comments
05/24/22	10:35:00	-0.84667		4342.39		96.42	
05/24/22	10:36:00	-0.83000		4342.31		96.42	
05/24/22	10:37:00	-0.81333		4342.72		96.42	
05/24/22	10:38:00	-0.79667		4342.53		96.42	
05/24/22	10:39:00	-0.78000		4342.00		96.42	
05/24/22	10:40:00	-0.76333		4341.98		96.42	
05/24/22	10:41:00	-0.74667		4341.91		96.42	
05/24/22	10:42:00	-0.73000		4341.90		96.42	
05/24/22	10:43:00	-0.71333		4341.87		96.42	
05/24/22	10:44:00	-0.69667		4341.93		96.42	
05/24/22	10:45:00	-0.68000		4341.94		96.42	
05/24/22	10:46:00	-0.66333		4341.90		96.42	
05/24/22	10:47:00	-0.64667		4341.90		96.42	
05/24/22	10:48:00	-0.63000		4341.90		96.42	
05/24/22	10:49:00	-0.61333		4341.93		96.42	
05/24/22	10:50:00	-0.59667		4341.91		96.42	
05/24/22	10:51:00	-0.58000		4341.87		96.42	
05/24/22	10:52:00	-0.56333		4341.91		96.42	
05/24/22	10:53:00	-0.54667		4341.93		96.42	
05/24/22	10:54:00	-0.53000		4341.87		96.42	
05/24/22	10:55:00	-0.51333		4341.90		96.42	
05/24/22	10:56:00	-0.49667		4341.90		96.42	
05/24/22	10:57:00	-0.48000		4341.79		96.42	
05/24/22	10:58:00	-0.46333		4341.80		96.42	
05/24/22	10:59:00	-0.44667		4341.80		96.42	
05/24/22	11:00:00	-0.43000		4341.83		96.42	
05/24/22	11:01:00	-0.41333		4341.84		96.42	
05/24/22	11:02:00	-0.39667		4341.80		96.42	
05/24/22	11:03:00	-0.38000		4341.75		96.43	
05/24/22	11:04:00	-0.36333		4341.85		96.43	
05/24/22	11:05:00	-0.34667		4341.84		96.43	
05/24/22	11:06:00	-0.33000		4341.83		96.43	
05/24/22	11:07:00	-0.31333		4341.83		96.43	
05/24/22	11:08:00	-0.29667		4341.77		96.43	
05/24/22	11:09:00	-0.28000		4341.82		96.43	
05/24/22	11:10:00	-0.26333		4341.82		96.43	
05/24/22	11:11:00	-0.24667		4341.87		96.43	
05/24/22	11:12:00	-0.23000		4341.73		96.43	

FESCO, Ltd.

1000 Fesco Ave. - Alice, Texas 78332

RESERVOIR PRESSURE FALLOFF TEST

Company:	Petrotek Corporation	Test Date:	05/24 - 05/26/2022
Well:	Navajo Refining Waste Disposal Well No. 1	Gauge Depth:	7887 ft
Field:	Davonia	Gauge Type:	Electronic
Location:	Eddy County, NM	Gauge SN:	SP-224831
Perfs:	7924 - 8188; 8220 - 8476 ft (MD)	Gauge Range:	16000 psi
Formation:	Unavailable	Gauge OD:	1.2500"

Test Date mm/dd/yy	Real Time hh:mm:ss	Delta Time hours	WHP psia	BHP psia	Delta BHP psi	Temp. °F	Comments
05/24/22	11:13:00	-0.21333		4341.77		96.43	
05/24/22	11:14:00	-0.19667		4341.89		96.43	
05/24/22	11:15:00	-0.18000		4341.81		96.43	
05/24/22	11:16:00	-0.16333		4341.82		96.43	
05/24/22	11:17:00	-0.14667		4341.74		96.43	
05/24/22	11:18:00	-0.13000		4341.84		96.43	
05/24/22	11:19:00	-0.11333		4341.76		96.43	
05/24/22	11:20:00	-0.09667		4341.82		96.43	
05/24/22	11:21:00	-0.08000		4341.82		96.43	
05/24/22	11:22:00	-0.06333		4341.82		96.43	
05/24/22	11:23:00	-0.04667		4341.83		96.43	
05/24/22	11:24:00	-0.03000		4341.81		96.43	
05/24/22	11:25:00	-0.01333		4341.81		96.43	
05/24/22	11:25:42	-0.00167		4341.85		96.43	Casing Pressure = N/A
05/24/22	11:25:45	-0.00083		4341.78		96.43	Water Injection Rate = Unavailable
05/24/22	11:25:48	0.00000	970	4341.72	0.00	96.43	Shut in well for 44.8 hr BHP Falloff Test.
05/24/22	11:25:51	0.00083		4340.33	-1.39	96.43	
05/24/22	11:25:54	0.00167		4336.35	-5.37	96.43	
05/24/22	11:25:57	0.00250		4333.66	-8.06	96.43	
05/24/22	11:26:00	0.00333		4331.73	-9.99	96.43	
05/24/22	11:26:03	0.00417		4329.47	-12.25	96.43	
05/24/22	11:26:06	0.00500		4327.81	-13.91	96.44	
05/24/22	11:26:09	0.00583		4326.31	-15.41	96.44	
05/24/22	11:26:12	0.00667		4324.93	-16.79	96.44	
05/24/22	11:26:15	0.00750		4323.58	-18.14	96.45	
05/24/22	11:26:18	0.00833		4322.38	-19.34	96.46	
05/24/22	11:26:21	0.00917		4321.34	-20.38	96.46	
05/24/22	11:26:24	0.01000		4320.30	-21.42	96.47	
05/24/22	11:26:27	0.01083		4319.32	-22.40	96.48	
05/24/22	11:26:30	0.01167		4318.33	-23.39	96.48	
05/24/22	11:26:33	0.01250		4317.43	-24.29	96.48	
05/24/22	11:26:36	0.01333		4316.51	-25.21	96.49	
05/24/22	11:26:39	0.01417		4315.65	-26.07	96.49	
05/24/22	11:26:42	0.01500		4314.78	-26.94	96.50	
05/24/22	11:26:45	0.01583		4313.97	-27.75	96.50	
05/24/22	11:26:48	0.01667		4313.16	-28.56	96.50	
05/24/22	11:26:51	0.01750		4312.39	-29.33	96.50	
05/24/22	11:26:54	0.01833		4311.60	-30.12	96.51	

FESCO, Ltd.

1000 Fesco Ave. - Alice, Texas 78332

RESERVOIR PRESSURE FALLOFF TEST

Company:	Petrotek Corporation	Test Date:	05/24 - 05/26/2022
Well:	Navajo Refining Waste Disposal Well No. 1	Gauge Depth:	7887 ft
Field:	Davonia	Gauge Type:	Electronic
Location:	Eddy County, NM	Gauge SN:	SP-224831
Perfs:	7924 - 8188; 8220 - 8476 ft (MD)	Gauge Range:	16000 psi
Formation:	Unavailable	Gauge OD:	1.2500"

Test Date mm/dd/yy	Real Time hh:mm:ss	Delta Time hours	WHP psia	BHP psia	Delta BHP psi	Temp. °F	Comments
05/24/22	11:26:57	0.01917		4310.84	-30.88	96.51	
05/24/22	11:27:00	0.02000		4310.10	-31.62	96.51	
05/24/22	11:27:03	0.02083		4309.36	-32.36	96.51	
05/24/22	11:27:06	0.02167		4308.61	-33.11	96.52	
05/24/22	11:27:09	0.02250		4307.85	-33.87	96.52	
05/24/22	11:27:12	0.02333		4307.15	-34.57	96.52	
05/24/22	11:27:15	0.02417		4306.46	-35.26	96.52	
05/24/22	11:27:18	0.02500		4305.77	-35.95	96.52	
05/24/22	11:27:21	0.02583		4305.07	-36.65	96.52	
05/24/22	11:27:24	0.02667		4304.40	-37.32	96.52	
05/24/22	11:27:27	0.02750		4303.74	-37.98	96.52	
05/24/22	11:27:30	0.02833		4303.09	-38.63	96.52	
05/24/22	11:27:33	0.02917		4302.44	-39.28	96.53	
05/24/22	11:27:36	0.03000		4301.80	-39.92	96.53	
05/24/22	11:27:39	0.03083		4301.16	-40.56	96.53	
05/24/22	11:27:42	0.03167		4300.54	-41.18	96.53	
05/24/22	11:27:48	0.03333		4299.31	-42.41	96.53	
05/24/22	11:27:51	0.03417		4298.70	-43.02	96.53	
05/24/22	11:27:54	0.03500		4298.11	-43.61	96.53	
05/24/22	11:27:57	0.03583		4297.56	-44.16	96.53	
05/24/22	11:28:00	0.03667		4296.94	-44.78	96.53	
05/24/22	11:28:06	0.03833		4295.84	-45.88	96.53	
05/24/22	11:28:09	0.03917		4295.26	-46.46	96.53	
05/24/22	11:28:12	0.04000		4294.69	-47.03	96.53	
05/24/22	11:28:18	0.04167		4293.60	-48.12	96.53	
05/24/22	11:28:21	0.04250		4293.10	-48.62	96.53	
05/24/22	11:28:27	0.04417		4292.32	-49.40	96.53	
05/24/22	11:28:30	0.04500		4293.88	-47.84	96.53	
05/24/22	11:28:36	0.04667		4293.46	-48.26	96.53	
05/24/22	11:28:39	0.04750		4296.97	-44.75	96.53	
05/24/22	11:28:45	0.04917		4294.55	-47.17	96.53	
05/24/22	11:28:51	0.05083		4294.89	-46.83	96.53	
05/24/22	11:28:54	0.05167		4296.07	-45.65	96.53	
05/24/22	11:29:00	0.05333		4294.89	-46.83	96.54	
05/24/22	11:29:06	0.05500		4294.92	-46.80	96.55	
05/24/22	11:29:12	0.05667		4294.86	-46.86	96.55	
05/24/22	11:29:18	0.05833		4295.27	-46.45	96.56	
05/24/22	11:29:24	0.06000		4294.77	-46.95	96.56	

FESCO, Ltd.

1000 Fesco Ave. - Alice, Texas 78332

RESERVOIR PRESSURE FALLOFF TEST

Company:	Petrotek Corporation	Test Date:	05/24 - 05/26/2022
Well:	Navajo Refining Waste Disposal Well No. 1	Gauge Depth:	7887 ft
Field:	Davonia	Gauge Type:	Electronic
Location:	Eddy County, NM	Gauge SN:	SP-224831
Perfs:	7924 - 8188; 8220 - 8476 ft (MD)	Gauge Range:	16000 psi
Formation:	Unavailable	Gauge OD:	1.2500"

Test Date mm/dd/yy	Real Time hh:mm:ss	Delta Time hours	WHP psia	BHP psia	Delta BHP psi	Temp. °F	Comments
05/24/22	11:29:30	0.06167		4294.32	-47.40	96.57	
05/24/22	11:29:36	0.06333		4293.87	-47.85	96.57	
05/24/22	11:29:42	0.06500		4293.81	-47.91	96.58	
05/24/22	11:29:51	0.06750		4293.15	-48.57	96.58	
05/24/22	11:29:57	0.06917		4293.01	-48.71	96.58	
05/24/22	11:30:03	0.07083		4292.71	-49.01	96.59	
05/24/22	11:30:12	0.07333		4292.09	-49.63	96.59	
05/24/22	11:30:18	0.07500		4291.76	-49.96	96.59	
05/24/22	11:30:27	0.07750		4291.12	-50.60	96.59	
05/24/22	11:30:36	0.08000		4290.47	-51.25	96.59	
05/24/22	11:30:45	0.08250		4289.86	-51.86	96.60	
05/24/22	11:30:51	0.08417		4289.47	-52.25	96.60	
05/24/22	11:31:00	0.08667		4288.86	-52.86	96.60	
05/24/22	11:31:09	0.08917		4288.28	-53.44	96.60	
05/24/22	11:31:21	0.09250		4287.45	-54.27	96.60	
05/24/22	11:31:30	0.09500		4286.83	-54.89	96.60	
05/24/22	11:31:39	0.09750		4286.23	-55.49	96.60	
05/24/22	11:31:51	0.10083		4285.41	-56.31	96.60	
05/24/22	11:32:00	0.10333		4284.80	-56.92	96.60	
05/24/22	11:32:12	0.10667		4284.00	-57.72	96.60	
05/24/22	11:32:21	0.10917		4283.39	-58.33	96.61	
05/24/22	11:32:33	0.11250		4282.59	-59.13	96.61	
05/24/22	11:32:45	0.11583		4281.80	-59.92	96.61	
05/24/22	11:32:57	0.11917		4281.01	-60.71	96.61	
05/24/22	11:33:09	0.12250		4280.22	-61.50	96.61	
05/24/22	11:33:24	0.12667		4279.25	-62.47	96.62	
05/24/22	11:33:36	0.13000		4278.48	-63.24	96.62	
05/24/22	11:33:51	0.13417		4277.53	-64.19	96.63	
05/24/22	11:34:03	0.13750		4276.76	-64.96	96.64	
05/24/22	11:34:18	0.14167		4275.82	-65.90	96.65	
05/24/22	11:34:33	0.14583		4274.89	-66.83	96.66	
05/24/22	11:34:48	0.15000		4273.97	-67.75	96.67	
05/24/22	11:35:03	0.15417		4273.06	-68.66	96.68	
05/24/22	11:35:21	0.15917		4271.98	-69.74	96.69	
05/24/22	11:35:36	0.16333		4271.10	-70.62	96.70	
05/24/22	11:35:54	0.16833		4270.04	-71.68	96.71	
05/24/22	11:36:12	0.17333		4268.99	-72.73	96.73	
05/24/22	11:36:30	0.17833		4267.96	-73.76	96.74	

FESCO, Ltd.

1000 Fesco Ave. - Alice, Texas 78332

RESERVOIR PRESSURE FALLOFF TEST

Company:	Petrotek Corporation	Test Date:	05/24 - 05/26/2022
Well:	Navajo Refining Waste Disposal Well No. 1	Gauge Depth:	7887 ft
Field:	Davonia	Gauge Type:	Electronic
Location:	Eddy County, NM	Gauge SN:	SP-224831
Perfs:	7924 - 8188; 8220 - 8476 ft (MD)	Gauge Range:	16000 psi
Formation:	Unavailable	Gauge OD:	1.2500"

Test Date mm/dd/yy	Real Time hh:mm:ss	Delta Time hours	WHP psia	BHP psia	Delta BHP psi	Temp. °F	Comments
05/24/22	11:36:48	0.18333		4266.94	-74.78	96.76	
05/24/22	11:37:09	0.18917		4265.75	-75.97	96.78	
05/24/22	11:37:27	0.19417		4264.76	-76.96	96.79	
05/24/22	11:37:48	0.20000		4263.62	-78.10	96.80	
05/24/22	11:38:09	0.20583		4262.47	-79.25	96.82	
05/24/22	11:38:30	0.21167		4261.35	-80.37	96.84	
05/24/22	11:38:54	0.21833		4260.09	-81.63	96.86	
05/24/22	11:39:15	0.22417		4259.00	-82.72	96.88	
05/24/22	11:39:39	0.23083		4257.77	-83.95	96.90	
05/24/22	11:40:03	0.23750		4256.55	-85.17	96.91	
05/24/22	11:40:27	0.24417		4255.34	-86.38	96.93	
05/24/22	11:40:54	0.25167		4254.02	-87.70	96.96	
05/24/22	11:41:21	0.25917		4252.72	-89.00	96.97	
05/24/22	11:41:48	0.26667		4251.43	-90.29	96.99	
05/24/22	11:42:15	0.27417		4250.15	-91.57	97.01	
05/24/22	11:42:45	0.28250		4248.76	-92.96	97.03	
05/24/22	11:43:15	0.29083		4247.40	-94.32	97.05	
05/24/22	11:43:45	0.29917		4246.04	-95.68	97.08	
05/24/22	11:44:15	0.30750		4244.70	-97.02	97.11	
05/24/22	11:44:48	0.31667		4243.29	-98.43	97.14	
05/24/22	11:45:21	0.32583		4241.87	-99.85	97.17	
05/24/22	11:45:54	0.33500		4240.49	-101.23	97.19	
05/24/22	11:46:30	0.34500		4239.00	-102.72	97.21	
05/24/22	11:47:06	0.35500		4237.54	-104.18	97.23	
05/24/22	11:47:45	0.36583		4235.98	-105.74	97.26	
05/24/22	11:48:24	0.37667		4234.44	-107.28	97.30	
05/24/22	11:49:03	0.38750		4232.95	-108.77	97.33	
05/24/22	11:49:42	0.39833		4231.50	-110.22	97.37	
05/24/22	11:50:24	0.41000		4229.94	-111.78	97.40	
05/24/22	11:51:09	0.42250		4228.32	-113.40	97.43	
05/24/22	11:51:51	0.43417		4226.83	-114.89	97.46	
05/24/22	11:52:39	0.44750		4225.16	-116.56	97.51	
05/24/22	11:53:24	0.46000		4223.63	-118.09	97.53	
05/24/22	11:54:12	0.47333		4222.05	-119.67	97.56	
05/24/22	11:55:03	0.48750		4220.37	-121.35	97.59	
05/24/22	11:55:54	0.50167		4218.76	-122.96	97.62	
05/24/22	11:56:45	0.51583		4217.16	-124.56	97.66	
05/24/22	11:57:42	0.53167		4215.43	-126.29	97.69	

FESCO, Ltd.

1000 Fesco Ave. - Alice, Texas 78332

RESERVOIR PRESSURE FALLOFF TEST

Company:	Petrotek Corporation	Test Date:	05/24 - 05/26/2022
Well:	Navajo Refining Waste Disposal Well No. 1	Gauge Depth:	7887 ft
Field:	Davonia	Gauge Type:	Electronic
Location:	Eddy County, NM	Gauge SN:	SP-224831
Perfs:	7924 - 8188; 8220 - 8476 ft (MD)	Gauge Range:	16000 psi
Formation:	Unavailable	Gauge OD:	1.2500"

Test Date mm/dd/yy	Real Time hh:mm:ss	Delta Time hours	WHP psia	BHP psia	Delta BHP psi	Temp. °F	Comments
05/24/22	11:58:36	0.54667		4213.82	-127.90	97.73	
05/24/22	11:59:33	0.56250		4212.17	-129.55	97.78	
05/24/22	12:00:33	0.57917		4210.48	-131.24	97.82	
05/24/22	12:01:33	0.59583		4208.83	-132.89	97.86	
05/24/22	12:02:36	0.61333		4207.15	-134.57	97.90	
05/24/22	12:03:42	0.63167		4205.42	-136.30	97.93	
05/24/22	12:04:48	0.65000		4203.73	-137.99	97.97	
05/24/22	12:05:57	0.66917		4202.03	-139.69	98.01	
05/24/22	12:07:06	0.68833		4200.37	-141.35	98.06	
05/24/22	12:08:18	0.70833		4198.69	-143.03	98.10	
05/24/22	12:09:33	0.72917		4197.00	-144.72	98.14	
05/24/22	12:10:48	0.75000		4195.35	-146.37	98.18	
05/24/22	12:12:09	0.77250		4193.61	-148.11	98.23	
05/24/22	12:13:30	0.79500		4191.94	-149.78	98.28	
05/24/22	12:14:54	0.81833		4190.26	-151.46	98.32	
05/24/22	12:16:18	0.84167		4188.62	-153.10	98.37	
05/24/22	12:17:48	0.86667		4186.92	-154.80	98.42	
05/24/22	12:19:18	0.89167		4185.31	-156.41	98.47	
05/24/22	12:20:51	0.91750		4183.68	-158.04	98.52	
05/24/22	12:22:27	0.94417		4182.06	-159.66	98.57	
05/24/22	12:24:06	0.97167		4180.44	-161.28	98.61	
05/24/22	12:25:51	1.00083		4178.79	-162.93	98.66	
05/24/22	12:27:36	1.03000		4177.21	-164.51	98.71	
05/24/22	12:29:24	1.06000		4175.63	-166.09	98.77	
05/24/22	12:31:15	1.09083		4174.09	-167.63	98.82	
05/24/22	12:33:09	1.12250		4172.55	-169.17	98.87	
05/24/22	12:35:06	1.15500		4171.04	-170.68	98.93	
05/24/22	12:37:09	1.18917		4169.53	-172.19	98.98	
05/24/22	12:39:12	1.22333		4168.08	-173.64	99.05	
05/24/22	12:41:21	1.25917		4166.62	-175.10	99.10	
05/24/22	12:43:33	1.29583		4165.19	-176.53	99.17	
05/24/22	12:45:51	1.33417		4163.78	-177.94	99.22	
05/24/22	12:48:09	1.37250		4162.42	-179.30	99.27	
05/24/22	12:50:36	1.41333		4161.05	-180.67	99.35	
05/24/22	12:53:03	1.45417		4159.75	-181.97	99.40	
05/24/22	12:55:36	1.49667		4158.45	-183.27	99.47	
05/24/22	12:58:12	1.54000		4157.22	-184.50	99.53	
05/24/22	13:00:54	1.58500		4155.98	-185.74	99.59	

FESCO, Ltd.

1000 Fesco Ave. - Alice, Texas 78332

RESERVOIR PRESSURE FALLOFF TEST

Company:	Petrotek Corporation	Test Date:	05/24 - 05/26/2022
Well:	Navajo Refining Waste Disposal Well No. 1	Gauge Depth:	7887 ft
Field:	Davonia	Gauge Type:	Electronic
Location:	Eddy County, NM	Gauge SN:	SP-224831
Perfs:	7924 - 8188; 8220 - 8476 ft (MD)	Gauge Range:	16000 psi
Formation:	Unavailable	Gauge OD:	1.2500"

Test Date mm/dd/yy	Real Time hh:mm:ss	Delta Time hours	WHP psia	BHP psia	Delta BHP psi	Temp. °F	Comments
05/24/22	13:03:42	1.63167		4154.76	-186.96	99.66	
05/24/22	13:06:33	1.67917		4153.63	-188.09	99.73	
05/24/22	13:09:30	1.72833		4152.48	-189.24	99.79	
05/24/22	13:12:30	1.77833		4151.39	-190.33	99.86	
05/24/22	13:15:39	1.83083		4150.33	-191.39	99.92	
05/24/22	13:18:51	1.88417		4149.29	-192.43	99.99	
05/24/22	13:22:09	1.93917		4148.30	-193.42	100.05	
05/24/22	13:25:33	1.99583		4147.35	-194.37	100.12	
05/24/22	13:29:03	2.05417		4146.42	-195.30	100.19	
05/24/22	13:32:39	2.11417		4145.54	-196.18	100.26	
05/24/22	13:36:21	2.17583		4144.69	-197.03	100.32	
05/24/22	13:40:09	2.23917		4143.88	-197.84	100.39	
05/24/22	13:44:03	2.30417		4143.10	-198.62	100.46	
05/24/22	13:48:06	2.37167		4142.35	-199.37	100.53	
05/24/22	13:52:15	2.44083		4141.66	-200.06	100.60	
05/24/22	13:56:33	2.51250		4140.97	-200.75	100.67	
05/24/22	14:00:57	2.58583		4140.32	-201.40	100.75	
05/24/22	14:05:27	2.66083		4139.72	-202.00	100.81	
05/24/22	14:10:09	2.73917		4139.14	-202.58	100.88	
05/24/22	14:14:57	2.81917		4138.60	-203.12	100.96	
05/24/22	14:19:51	2.90083		4138.09	-203.63	101.03	
05/24/22	14:24:57	2.98583		4137.59	-204.13	101.10	
05/24/22	14:30:12	3.07333		4137.13	-204.59	101.18	
05/24/22	14:35:33	3.16250		4136.70	-205.02	101.25	
05/24/22	14:41:06	3.25500		4136.31	-205.41	101.33	
05/24/22	14:46:48	3.35000		4135.94	-205.78	101.41	
05/24/22	14:52:39	3.44750		4135.58	-206.14	101.47	
05/24/22	14:58:42	3.54833		4135.25	-206.47	101.55	
05/24/22	15:04:57	3.65250		4134.94	-206.78	101.62	
05/24/22	15:11:21	3.75917		4134.66	-207.06	101.70	
05/24/22	15:17:54	3.86833		4134.39	-207.33	101.77	
05/24/22	15:24:42	3.98167		4134.15	-207.57	101.84	
05/24/22	15:31:39	4.09750		4133.92	-207.80	101.92	
05/24/22	15:38:51	4.21750		4133.69	-208.03	101.98	
05/24/22	15:46:15	4.34083		4133.49	-208.23	102.05	
05/24/22	15:53:51	4.46750		4133.31	-208.41	102.12	
05/24/22	16:01:39	4.59750		4133.13	-208.59	102.19	
05/24/22	16:09:42	4.73167		4132.97	-208.75	102.27	

FESCO, Ltd.

1000 Fesco Ave. - Alice, Texas 78332

RESERVOIR PRESSURE FALLOFF TEST

Company:	Petrotek Corporation	Test Date:	05/24 - 05/26/2022
Well:	Navajo Refining Waste Disposal Well No. 1	Gauge Depth:	7887 ft
Field:	Davonia	Gauge Type:	Electronic
Location:	Eddy County, NM	Gauge SN:	SP-224831
Perfs:	7924 - 8188; 8220 - 8476 ft (MD)	Gauge Range:	16000 psi
Formation:	Unavailable	Gauge OD:	1.2500"

Test Date mm/dd/yy	Real Time hh:mm:ss	Delta Time hours	WHP psia	BHP psia	Delta BHP psi	Temp. °F	Comments
05/24/22	16:18:00	4.87000		4132.84	-208.88	102.33	
05/24/22	16:26:33	5.01250		4132.69	-209.03	102.40	
05/24/22	16:35:18	5.15833		4132.56	-209.16	102.47	
05/24/22	16:44:21	5.30917		4132.45	-209.27	102.54	
05/24/22	16:53:39	5.46417		4132.34	-209.38	102.61	
05/24/22	17:03:15	5.62417		4132.24	-209.48	102.68	
05/24/22	17:13:06	5.78833		4132.13	-209.59	102.75	
05/24/22	17:23:12	5.95667		4132.05	-209.67	102.81	
05/24/22	17:33:39	6.13083		4131.98	-209.74	102.88	
05/24/22	17:44:24	6.31000		4131.90	-209.82	102.94	
05/24/22	17:55:27	6.49417		4131.83	-209.89	103.01	
05/24/22	18:06:51	6.68417		4131.77	-209.95	103.07	
05/24/22	18:18:33	6.87917		4131.72	-210.00	103.13	
05/24/22	18:30:36	7.08000		4131.66	-210.06	103.19	
05/24/22	18:43:00	7.28667		4131.61	-210.11	103.25	
05/24/22	18:55:45	7.49917		4131.56	-210.16	103.32	
05/24/22	19:08:54	7.71833		4131.54	-210.18	103.38	
05/24/22	19:22:24	7.94333		4131.49	-210.23	103.44	
05/24/22	19:36:21	8.17583		4131.47	-210.25	103.49	
05/24/22	19:50:39	8.41417		4131.44	-210.28	103.55	
05/24/22	20:05:24	8.66000		4131.40	-210.32	103.61	
05/24/22	20:20:36	8.91333		4131.38	-210.34	103.66	
05/24/22	20:36:12	9.17333		4131.36	-210.36	103.72	
05/24/22	20:52:15	9.44083		4131.34	-210.38	103.77	
05/24/22	21:08:48	9.71667		4131.31	-210.41	103.83	
05/24/22	21:25:51	10.00083		4131.31	-210.41	103.88	
05/24/22	21:43:21	10.29250		4131.30	-210.42	103.93	
05/24/22	22:01:24	10.59333		4131.28	-210.44	103.98	
05/24/22	22:19:57	10.90250		4131.27	-210.45	104.03	
05/24/22	22:39:03	11.22083		4131.26	-210.46	104.08	
05/24/22	22:58:42	11.54833		4131.25	-210.47	104.13	
05/24/22	23:18:57	11.88583		4131.24	-210.48	104.18	
05/24/22	23:39:45	12.23250		4131.24	-210.48	104.22	
05/25/22	00:01:12	12.59000		4131.23	-210.49	104.26	
05/25/22	00:23:15	12.95750		4131.23	-210.49	104.31	
05/25/22	00:45:57	13.33583		4131.24	-210.48	104.35	
05/25/22	01:09:18	13.72500		4131.24	-210.48	104.39	
05/25/22	01:33:21	14.12583		4131.24	-210.48	104.43	

FESCO, Ltd.

1000 Fesco Ave. - Alice, Texas 78332

RESERVOIR PRESSURE FALLOFF TEST

Company:	Petrotek Corporation	Test Date:	05/24 - 05/26/2022
Well:	Navajo Refining Waste Disposal Well No. 1	Gauge Depth:	7887 ft
Field:	Davonia	Gauge Type:	Electronic
Location:	Eddy County, NM	Gauge SN:	SP-224831
Perfs:	7924 - 8188; 8220 - 8476 ft (MD)	Gauge Range:	16000 psi
Formation:	Unavailable	Gauge OD:	1.2500"

Test Date mm/dd/yy	Real Time hh:mm:ss	Delta Time hours	WHP psia	BHP psia	Delta BHP psi	Temp. °F	Comments
05/25/22	01:58:06	14.53833		4131.24	-210.48	104.47	
05/25/22	02:23:33	14.96250		4131.25	-210.47	104.51	
05/25/22	02:49:48	15.40000		4131.26	-210.46	104.55	
05/25/22	03:16:45	15.84917		4131.26	-210.46	104.59	
05/25/22	03:44:33	16.31250		4131.27	-210.45	104.62	
05/25/22	04:13:06	16.78833		4131.28	-210.44	104.66	
05/25/22	04:42:30	17.27833		4131.32	-210.40	104.72	
05/25/22	05:12:48	17.78333		4131.32	-210.40	104.77	
05/25/22	05:43:57	18.30250		4131.31	-210.41	104.80	
05/25/22	06:16:00	18.83667		4131.31	-210.41	104.83	
05/25/22	06:49:00	19.38667		4131.32	-210.40	104.86	
05/25/22	07:23:00	19.95333		4131.31	-210.41	104.89	
05/25/22	07:57:57	20.53583		4131.30	-210.42	104.93	
05/25/22	08:33:54	21.13500		4131.30	-210.42	104.96	
05/25/22	09:10:57	21.75250		4131.31	-210.41	104.98	
05/25/22	09:49:03	22.38750		4131.31	-210.41	105.02	
05/25/22	10:28:18	23.04167		4131.32	-210.40	105.05	
05/25/22	11:08:39	23.71417		4131.34	-210.38	105.08	
05/25/22	11:50:12	24.40667		4131.35	-210.37	105.11	
05/25/22	12:32:57	25.11917		4131.36	-210.36	105.14	
05/25/22	13:16:57	25.85250		4131.39	-210.33	105.16	
05/25/22	14:02:15	26.60750		4131.42	-210.30	105.19	
05/25/22	14:48:54	27.38500		4131.45	-210.27	105.22	
05/25/22	15:36:51	28.18417		4131.48	-210.24	105.25	
05/25/22	16:26:15	29.00750		4131.51	-210.21	105.28	
05/25/22	17:17:03	29.85417		4131.53	-210.19	105.31	
05/25/22	18:09:21	30.72583		4131.56	-210.16	105.33	
05/25/22	19:03:12	31.62333		4131.58	-210.14	105.36	
05/25/22	19:58:36	32.54667		4131.60	-210.12	105.39	
05/25/22	20:55:36	33.49667		4131.60	-210.12	105.42	
05/25/22	21:54:18	34.47500		4131.62	-210.10	105.44	
05/25/22	22:54:42	35.48167		4131.65	-210.07	105.47	
05/25/22	23:56:51	36.51750		4131.67	-210.05	105.50	
05/26/22	01:00:51	37.58417		4131.72	-210.00	105.52	
05/26/22	02:06:42	38.68167		4131.76	-209.96	105.55	
05/26/22	03:14:27	39.81083		4131.82	-209.90	105.58	
05/26/22	04:24:12	40.97333		4131.87	-209.85	105.60	
05/26/22	05:36:00	42.17000		4131.92	-209.80	105.63	

FESCO, Ltd.

1000 Fesco Ave. - Alice, Texas 78332

RESERVOIR PRESSURE FALLOFF TEST

Company:	Petrotek Corporation	Test Date:	05/24 - 05/26/2022
Well:	Navajo Refining Waste Disposal Well No. 1	Gauge Depth:	7887 ft
Field:	Davonia	Gauge Type:	Electronic
Location:	Eddy County, NM	Gauge SN:	SP-224831
Perfs:	7924 - 8188; 8220 - 8476 ft (MD)	Gauge Range:	16000 psi
Formation:	Unavailable	Gauge OD:	1.2500"

Test Date mm/dd/yy	Real Time hh:mm:ss	Delta Time hours	WHP psia	BHP psia	Delta BHP psi	Temp. °F	Comments
05/26/22	06:49:54	43.40167		4131.95	-209.77	105.65	
05/26/22	08:05:57	44.66917		4131.97	-209.75	105.68	
05/26/22	08:15:00	44.82000	720	4131.97	-209.75	105.68	Ended BHP Falloff Test.
05/26/22	08:16:00	44.83667		4131.70		105.70	
05/26/22	08:17:00	44.85333		4131.70		105.70	
05/26/22	08:18:00	44.87000		4131.71		105.71	
05/26/22	08:18:54	44.88500		4131.71		105.72	POOH making static gradient stops.
05/26/22	08:19:00	44.88667		4130.77		105.72	
05/26/22	08:20:00	44.90333		4088.62		106.62	
05/26/22	08:21:00	44.92000		4026.05		107.77	
05/26/22	08:22:00	44.93667		3958.76		107.16	
05/26/22	08:23:00	44.95333		3885.88		106.17	
05/26/22	08:24:00	44.97000		3808.72		104.81	
05/26/22	08:24:51	44.98417		3748.08		103.87	Arrived at 7000 ft stop.
05/26/22	08:25:00	44.98667		3747.82		103.82	
05/26/22	08:26:00	45.00333		3747.50		103.78	
05/26/22	08:27:00	45.02000		3747.50		103.77	
05/26/22	08:28:00	45.03667		3747.51		103.77	
05/26/22	08:29:00	45.05333		3747.49		103.77	
05/26/22	08:29:54	45.06833		3747.28		103.77	Left 7000 ft stop.
05/26/22	08:30:00	45.07000		3741.36		103.77	
05/26/22	08:31:00	45.08667		3657.21		104.51	
05/26/22	08:32:00	45.10333		3577.05		103.80	
05/26/22	08:33:00	45.12000		3489.76		102.33	
05/26/22	08:34:00	45.13667		3401.74		101.04	
05/26/22	08:35:00	45.15333		3318.89		100.43	
05/26/22	08:35:06	45.15500		3315.65		100.36	Arrived at 6000 ft stop.
05/26/22	08:36:00	45.17000		3314.94		100.23	
05/26/22	08:37:00	45.18667		3314.94		100.22	
05/26/22	08:38:00	45.20333		3314.97		100.22	
05/26/22	08:39:00	45.22000		3314.94		100.21	
05/26/22	08:40:00	45.23667		3314.96		100.21	
05/26/22	08:40:09	45.23917		3314.97		100.21	Left 6000 ft stop.
05/26/22	08:41:00	45.25333		3260.76		99.83	
05/26/22	08:42:00	45.27000		3186.90		98.76	
05/26/22	08:43:00	45.28667		3112.43		98.12	
05/26/22	08:44:00	45.30333		3037.77		97.65	
05/26/22	08:45:00	45.32000		2960.41		96.84	

FESCO, Ltd.

1000 Fesco Ave. - Alice, Texas 78332

RESERVOIR PRESSURE FALLOFF TEST

Company:	Petrotek Corporation	Test Date:	05/24 - 05/26/2022
Well:	Navajo Refining Waste Disposal Well No. 1	Gauge Depth:	7887 ft
Field:	Davonia	Gauge Type:	Electronic
Location:	Eddy County, NM	Gauge SN:	SP-224831
Perfs:	7924 - 8188; 8220 - 8476 ft (MD)	Gauge Range:	16000 psi
Formation:	Unavailable	Gauge OD:	1.2500"

Test Date mm/dd/yy	Real Time hh:mm:ss	Delta Time hours	WHP psia	BHP psia	Delta BHP psi	Temp. °F	Comments
05/26/22	08:46:00	45.33667		2887.64		95.98	
05/26/22	08:46:09	45.33917		2883.30		95.89	Arrived at 5000 ft stop.
05/26/22	08:47:00	45.35333		2882.78		95.77	
05/26/22	08:48:00	45.37000		2882.78		95.76	
05/26/22	08:49:00	45.38667		2882.77		95.76	
05/26/22	08:50:00	45.40333		2882.77		95.75	
05/26/22	08:51:00	45.42000		2882.74		95.75	
05/26/22	08:51:09	45.42250		2882.78		95.75	Left 5000 ft stop.
05/26/22	08:52:00	45.43667		2818.74		95.32	
05/26/22	08:53:00	45.45333		2734.64		94.47	
05/26/22	08:54:00	45.47000		2650.04		93.67	
05/26/22	08:55:00	45.48667		2562.20		92.86	
05/26/22	08:56:00	45.50333		2475.22		92.13	
05/26/22	08:56:18	45.50833		2451.83		91.88	Arrived at 4000 ft stop.
05/26/22	08:57:00	45.52000		2450.69		91.73	
05/26/22	08:58:00	45.53667		2450.56		91.72	
05/26/22	08:59:00	45.55333		2450.57		91.72	
05/26/22	09:00:00	45.57000		2450.58		91.72	
05/26/22	09:01:00	45.58667		2450.57		91.71	
05/26/22	09:02:00	45.60333		2450.58		91.71	
05/26/22	09:02:36	45.61333		2450.60		91.71	Left 4000 ft stop.
05/26/22	09:03:00	45.62000		2422.50		91.59	
05/26/22	09:04:00	45.63667		2326.84		90.86	
05/26/22	09:05:00	45.65333		2230.37		90.13	
05/26/22	09:06:00	45.67000		2135.51		89.27	
05/26/22	09:07:00	45.68667		2040.27		88.65	
05/26/22	09:07:21	45.69250		2018.12		88.41	Arrived at 3000 ft stop.
05/26/22	09:08:00	45.70333		2017.75		88.35	
05/26/22	09:09:00	45.72000		2017.75		88.35	
05/26/22	09:10:00	45.73667		2017.76		88.35	
05/26/22	09:11:00	45.75333		2017.77		88.34	
05/26/22	09:12:00	45.77000		2017.76		88.34	
05/26/22	09:12:24	45.77667		2017.77		88.34	Left 3000 ft stop.
05/26/22	09:13:00	45.78667		1976.29		88.20	
05/26/22	09:14:00	45.80333		1898.40		87.58	
05/26/22	09:15:00	45.82000		1818.45		87.07	
05/26/22	09:16:00	45.83667		1737.74		86.19	
05/26/22	09:17:00	45.85333		1658.88		85.42	

FESCO, Ltd.

1000 Fesco Ave. - Alice, Texas 78332

RESERVOIR PRESSURE FALLOFF TEST

Company:	Petrotek Corporation	Test Date:	05/24 - 05/26/2022
Well:	Navajo Refining Waste Disposal Well No. 1	Gauge Depth:	7887 ft
Field:	Davonia	Gauge Type:	Electronic
Location:	Eddy County, NM	Gauge SN:	SP-224831
Perfs:	7924 - 8188; 8220 - 8476 ft (MD)	Gauge Range:	16000 psi
Formation:	Unavailable	Gauge OD:	1.2500"

Test Date mm/dd/yy	Real Time hh:mm:ss	Delta Time hours	WHP psia	BHP psia	Delta BHP psi	Temp. °F	Comments
05/26/22	09:18:00	45.87000		1586.48		85.00	Arrived at 2000 ft stop.
05/26/22	09:19:00	45.88667		1586.18		84.91	
05/26/22	09:20:00	45.90333		1586.19		84.90	
05/26/22	09:21:00	45.92000		1586.20		84.90	
05/26/22	09:22:00	45.93667		1586.20		84.89	
05/26/22	09:23:00	45.95333		1586.20		84.89	Left 2000 ft stop.
05/26/22	09:24:00	45.97000		1511.43		84.70	
05/26/22	09:25:00	45.98667		1432.20		84.00	
05/26/22	09:26:00	46.00333		1345.13		83.50	
05/26/22	09:27:00	46.02000		1257.95		82.75	
05/26/22	09:28:00	46.03667		1171.10		81.93	
05/26/22	09:28:18	46.04167		1154.77		81.69	Arrived at 1000 ft stop.
05/26/22	09:29:00	46.05333		1154.47		81.70	
05/26/22	09:30:00	46.07000		1154.54		81.71	
05/26/22	09:31:00	46.08667		1154.56		81.71	
05/26/22	09:32:00	46.10333		1154.55		81.71	
05/26/22	09:33:00	46.12000		1154.56		81.71	
05/26/22	09:33:18	46.12500		1154.58		81.71	Left 1000 ft stop.
05/26/22	09:34:00	46.13667		1117.70		82.17	
05/26/22	09:35:00	46.15333		1053.75		80.94	
05/26/22	09:36:00	46.17000		981.30		80.55	
05/26/22	09:37:00	46.18667		898.30		80.96	
05/26/22	09:38:00	46.20333		827.20		82.01	
05/26/22	09:39:00	46.22000		767.52		83.80	
05/26/22	09:40:00	46.23667		740.13		79.38	
05/26/22	09:40:39	46.24750		724.61		72.75	Gauge at surface.
05/26/22	09:41:00	46.25333		722.93		72.14	
05/26/22	09:42:00	46.27000		722.39		71.66	
05/26/22	09:43:00	46.28667		722.70		71.47	
05/26/22	09:44:00	46.30333		722.47		71.45	
05/26/22	09:45:00	46.32000		722.46		71.42	
05/26/22	09:45:30	46.32833	720	722.45		71.40	Surface stop.
05/26/22	09:45:42	46.33167		723.19		71.21	Close crown valve
05/26/22	09:46:00	46.33667		706.22		73.91	
05/26/22	09:47:00	46.35333		714.92		76.63	
05/26/22	09:48:00	46.37000		759.09		76.52	
05/26/22	09:49:00	46.38667		740.75		76.25	
05/26/22	09:50:00	46.40333		733.80		76.20	

FESCO, Ltd.

1000 Fesco Ave. - Alice, Texas 78332

RESERVOIR PRESSURE FALLOFF TEST

Company:	Petrotek Corporation	Test Date:	05/24 - 05/26/2022
Well:	Navajo Refining Waste Disposal Well No. 1	Gauge Depth:	7887 ft
Field:	Davonia	Gauge Type:	Electronic
Location:	Eddy County, NM	Gauge SN:	SP-224831
Perfs:	7924 - 8188; 8220 - 8476 ft (MD)	Gauge Range:	16000 psi
Formation:	Unavailable	Gauge OD:	1.2500"

Test Date mm/dd/yy	Real Time hh:mm:ss	Delta Time hours	WHP psia	BHP psia	Delta BHP psi	Temp. °F	Comments
05/26/22	09:50:12	46.40667		733.08		76.19	Pressured down lubricator.
05/26/22	09:55:00	46.48667		-0.46		77.18	
05/26/22	10:00:00	46.57000		8.82		73.25	
05/26/22	10:04:03	46.63750		13.06		72.37	Test completed.
05/26/22	10:05:00	46.65333		13.51		72.32	
05/26/22	10:06:24	46.67667		13.32		72.45	Powered down gauge.

Remarks: RIH with electronic gauge making injecting gradient stops to 7887 ft. Flow well for 1 hrs. SI well for 44.8 hr falloff test. POOH making static gradient stops to surface. RDMO.

Certified: FESCO, Ltd. - Midland, TX

By: Michael Carnes
District Manager - (432) 332-3211

Job No.: J202205261401.001A

Attachment 5
Falloff Test Summary

DW No. 1
Falloff Test Summary

Reservoir Properties

Net Pay (h)	175	ft
Porosity (Φ)	10.0	%
Formation Compressibility (c_f)	8.20E-06	psi^{-1}
Total Compressibility (c_t)	1.09E-05	psi^{-1}
Wellbore Radius (r_w)	0.365	ft

Fluid Properties

Viscosity (μ)	0.57	cp
Fluid Compressibility (c_f)	2.70E-06	psi^{-1}
Formation Volume Factor (B)	1.00	bbl/stb

Model Parameters

Wellbore Storage	Changing hegeman
Well Model	Vertical
Reservoir Model	Dual-porosity PSS
Boundary Model	Infinite

Analysis Results

Well & Wellbore

Initial Wellbore Storage	1.70E-01	bbl/psi
Final Wellbore Storage	1.30E+00	bbl/psi
D_t [changing storage]	6.82E-02	hr
Skin	72.9	

Reservoir & Boundary

Permeability (k)	1,614	md
Transmissibility	495,672	md-ft/cp
Radius of Investigation (r_i)	9,917	ft
Omega	3.56E-02	
Lambda	7.42E-10	

Attachment 6
AOR Well List

Operator	Well Name	API	Well Type	PLSS Location	Latitude	Longitude	Well Status	Spud Date	Plug Date
Spur Energy Partners LLC	BIG BOY STATE #006	30-015-39324	Oil	O-36-17S-27E	32.78460	-104.23080	Active	12/18/2011	-
Spur Energy Partners LLC	BIG BOY STATE #007	30-015-39325	Oil	O-36-17S-27E	32.78600	-104.23080	Active	1/6/2012	-
Spur Energy Partners LLC	BIG BOY STATE #008	30-015-39326	Oil	O-36-17S-27E	32.78400	-104.22860	Active	5/6/2013	-
APACHE CORPORATION	AAO FEDERAL #007	30-015-33473	Oil	G-01-18S-27E	32.77840	-104.22890	Active	10/22/2004	-
APACHE CORPORATION	AAO FEDERAL #003	30-015-32309	Oil	B-01-18S-27E	32.78240	-104.22910	Active	3/12/2003	-
REMNANT OIL OPERATING, LLC	SOUTH RED LAKE II UNIT #057	30-015-36116	Oil	G-36-17S-27E	32.79140	-104.22900	Active	4/14/2008	-
Spur Energy Partners LLC	BIG BOY STATE #005	30-015-39323	Oil	O-36-17S-27E	32.78570	-104.22860	Active	4/21/2012	-
LLJ VENTURES, LLC DBA MARKER OIL & GAS	GATES STATE #003	30-015-31036	Oil	H-36-17S-27E	32.79140	-104.22680	Active	3/25/2000	-
APACHE CORPORATION	AAO FEDERAL #004	30-015-32310	Oil	01-18S-27E	32.78050	-104.22680	Active	7/14/2003	-
APACHE CORPORATION	AAO FEDERAL #017	30-015-42027	Oil	H-01-18S-27E	32.77870	-104.22640	Active	3/27/2014	-
APACHE CORPORATION	EMPIRE ABO UNIT #203	30-015-22656	Oil	H-01-18S-27E	32.77660	-104.22580	Active	9/13/1978	-
APACHE CORPORATION	RED LAKE 36 A STATE #002	30-015-33994	Oil	A-36-17S-27E	32.79520	-104.22500	Active	3/23/2005	-
APACHE CORPORATION	AAO FEDERAL #023	30-015-42336	Oil	H-01-18S-27E	32.77700	-104.22460	Active	8/4/2014	-
LLJ VENTURES, LLC DBA MARKER OIL & GAS	HOMAN #001	30-015-00669	Oil	H-36-17S-27E	32.79140	-104.22470	Active	5/22/1949	-
APACHE CORPORATION	AAO FEDERAL #014	30-015-42024	Oil	A-01-18S-27E	32.78290	-104.22400	Active	3/7/2014	-
TARCO ENERGY, LC	DELHI #007	30-015-00646	Oil	A-36-17S-27E	32.79500	-104.22470	Active	3/26/1950	-
APACHE CORPORATION	AAO FEDERAL #024	30-015-42337	Oil	A-01-18S-27E	32.78050	-104.22440	Active	6/3/2014	-
APACHE CORPORATION	AAO FEDERAL #008	30-015-33784	Oil	01-18S-27E	32.77870	-104.22460	Active	2/28/2005	-
LLJ VENTURES, LLC DBA MARKER OIL & GAS	GATES STATE #001	30-015-00689	Oil	H-36-17S-27E	32.79320	-104.22470	Active	7/21/1951	-
LLJ VENTURES, LLC DBA MARKER OIL & GAS	ASTON & FAIR A #001	30-015-01633	Oil	D-31-17S-28E	32.79680	-104.22260	Active	12/28/1945	-
Contango Resources, Inc.	ENRON STATE #015	30-015-36978	Oil	D-31-17S-28E	32.79500	-104.22250	Active	6/25/2009	-
ROVER OPERATING, LLC	RAMPO #001	30-015-01639	Oil	M-31-17S-28E	32.78590	-104.22250	Active	3/17/1948	-
ROVER OPERATING, LLC	HUDSON SAIKIN STATE #001	30-015-02666	Oil	E-31-17S-28E	32.79140	-104.22250	Active	4/17/1948	-
ROVER OPERATING, LLC	RAMPO #002	30-015-01640	Oil	L-31-17S-28E	32.78960	-104.22250	Active	6/15/1955	-
Contango Resources, Inc.	ENRON STATE #020	30-015-42372	Oil	D-31-17S-28E	32.79680	-104.22220	Active	7/6/2014	-
APACHE CORPORATION	EMPIRE ABO UNIT #021C	30-015-02619	Oil	E-06-18S-28E	32.77780	-104.22140	Active	10/7/1959	-
APACHE CORPORATION	EMPIRE ABO UNIT #021B	30-015-02613	Oil	D-06-18S-28E	32.78050	-104.22140	Active	12/8/1959	-
Contango Resources, Inc.	ENRON STATE #016	30-015-38512	Oil	D-31-17S-28E	32.79500	-104.22060	Active	8/11/2011	-
ROVER OPERATING, LLC	HUDSON SAIKIN STATE #002	30-015-24887	Oil	E-31-17S-28E	32.79140	-104.22040	Active	6/5/1984	-
Contango Resources, Inc.	ENRON STATE #004	30-015-32162	Oil	D-31-17S-28E	32.79650	-104.22040	Active	3/25/2003	-
APACHE CORPORATION	EMPIRE ABO UNIT #211	30-015-21395	Oil	E-06-18S-28E	32.77600	-104.21930	Active	12/12/1974	-
APACHE CORPORATION	EMPIRE ABO UNIT #222	30-015-22012	Oil	F-06-18S-28E	32.77960	-104.21840	Active	2/17/1977	-
APACHE CORPORATION	EMPIRE ABO UNIT #022C	30-015-02610	Oil	N-06-18S-28E	32.77160	-104.21790	Active	7/19/1960	-
ROVER OPERATING, LLC	STATE FX #001	30-015-10107	Oil	F-06-18S-28E	32.77820	-104.21750	Active	7/9/1963	-
Contango Resources, Inc.	STALEY STATE #012	30-015-37673	Oil	N-30-17S-28E	32.79870	-104.21830	Active	5/24/2010	-
APACHE CORPORATION	EMPIRE ABO UNIT #022D	30-015-02620	Oil	F-06-18S-28E	32.77780	-104.21680	Active	11/3/1959	-
APACHE CORPORATION	EMPIRE ABO UNIT #022E	30-015-02621	Oil	C-06-18S-28E	32.78150	-104.21710	Active	11/29/1959	-
APACHE CORPORATION	EMPIRE ABO UNIT #022F	30-015-02623	Oil	K-06-18S-28E	32.77510	-104.21680	Active	1/28/1960	-
ROVER OPERATING, LLC	STATE FV #001	30-015-10118	Oil	N-31-17S-28E	32.78540	-104.21640	Active	2/8/1963	-
GEORGE A CHASE JR DBA G AND C SERVICE	ASTON & FAIR #001Y	30-015-01635	Oil	F-31-17S-28E	32.79140	-104.21610	Active	6/7/1947	-
Contango Resources, Inc.	STALEY STATE #017	30-015-40026	Oil	N-30-17S-28E	32.79870	-104.21580	Active	3/15/2012	-
APACHE CORPORATION	EMPIRE ABO UNIT #221	30-015-21746	Oil	F-06-18S-28E	32.77620	-104.21470	Active	3/28/1976	-
NAVAJO REFINING COMPANY, L.L.C.	WDW #001	30-015-27592	lt Water Dispos	O-31-17S-28E	32.78520	-104.21380	Active	8/4/1993	-
ROVER OPERATING, LLC	STATE FW #001	30-015-01642	Oil	J-31-17S-28E	32.78790	-104.21380	Active	11/29/1962	-
GEORGE A CHASE JR DBA G AND C SERVICE	MALCO STATE #002	30-015-36343	Oil	G-31-17S-28E	32.79330	-104.21390	Active	6/30/2008	-
GEORGE A CHASE JR DBA G AND C SERVICE	MALCO STATE #001	30-015-01637	Oil	G-31-17S-28E	32.79140	-104.21390	Active	1/14/1953	-
Contango Resources, Inc.	STALEY STATE #029	30-015-42726	Oil	O-30-17S-28E	32.79920	-104.21340	Active	11/22/2014	-
Contango Resources, Inc.	STALEY STATE #009	30-015-36564	Oil	O-30-17S-28E	32.79870	-104.21360	Active	12/15/2008	-
GEORGE A CHASE JR DBA G AND C SERVICE	MALCO STATE #003	30-015-37428	Oil	G-31-17S-28E	32.79240	-104.21280	Active	12/20/2009	-
APACHE CORPORATION	EMPIRE ABO UNIT #023B	30-015-02614	Oil	G-06-18S-28E	32.77790	-104.21270	Active	12/28/1959	-
SBKF, LLC	POWCO STATE #001	30-015-21594	Oil	B-31-17S-28E	32.79690	-104.21180	Active	8/28/1975	-
Contango Resources, Inc.	STALEY STATE #020	30-015-40983	Oil	O-30-17S-28E	32.79870	-104.21180	Active	3/3/2013	-
R & M Oil, LLC	BOLING #001	30-015-01652	Oil	G-31-17S-28E	32.79150	-104.21160	Active	12/14/1989	-
SBKF, LLC	POWCO STATE #002	30-015-25621	Oil	B-31-17S-28E	32.79510	-104.21170	Active	5/12/1986	-
CFM OIL, LLC	BLAKE STATE #001	30-015-01616	Oil	P-30-17S-28E	32.79870	-104.20970	Active	11/21/1952	-
Contango Resources, Inc.	NW STATE #028	30-015-30893	Oil	A-31-17S-28E	32.79510	-104.20950	Active	9/14/2000	-
Contango Resources, Inc.	ANTHONEY #002	30-015-38234	Oil	P-30-17S-28E	32.79900	-104.20900	Active	2/1/2011	-
Contango Resources, Inc.	ANTHONEY STATE #003	30-015-39638	Oil	P-30-17S-28E	32.79900	-104.20860	Active	2/21/2012	-
Contango Resources, Inc.	NORTHWEST ARTESIA UNIT #010	30-015-10833	Oil	I-31-17S-28E	32.78890	-104.20850	Active	6/4/1966	-
Contango Resources, Inc.	NORTHWEST ARTESIA UNIT #011	30-015-20042	Oil	P-31-17S-28E	32.78620	-104.20840	Active	4/26/1967	-
Contango Resources, Inc.	NW STATE #012	30-015-30784	Oil	A-31-17S-28E	32.79690	-104.20800	Active	11/11/1999	-
APACHE CORPORATION	EMPIRE ABO UNIT #024B	30-015-02615	Oil	A-06-18S-28E	32.78160	-104.20840	Active	1/28/1960	-
Contango Resources, Inc.	NW STATE #009	30-015-30849	Oil	I-31-17S-28E	32.78980	-104.20720	Active	12/14/1999	-
Contango Resources, Inc.	NW STATE #011	30-015-30783	Oil	H-31-17S-28E	32.79330	-104.20740	Active	11/3/1999	-
Contango Resources, Inc.	NORTHWEST ARTESIA UNIT #004	30-015-10537	Oil	H-31-17S-28E	32.79160	-104.20740	Active	3/3/1966	-
Contango Resources, Inc.	NW STATE #015	30-015-30785	Oil	A-06-18S-28E	32.78230	-104.20730	Active	12/20/1999	-
Contango Resources, Inc.	NW STATE #010	30-015-30760	Oil	P-31-17S-28E	32.78550	-104.20730	Active	10/12/1999	-
Contango Resources, Inc.	NORTHWEST ARTESIA UNIT #016	30-015-20019	Oil	A-06-18S-28E	32.78260	-104.20730	Active	2/15/1967	-
APACHE CORPORATION	EMPIRE ABO UNIT #024	30-015-01641	Oil	P-31-17S-28E	32.78530	-104.20840	Active	2/26/1960	-
Contango Resources, Inc.	ENRON STATE #018	30-015-40339	Oil	D-32-17S-28E	32.79510	-104.20530	Active	1/11/2014	-
APACHE CORPORATION	AB STATE 647 #004	30-015-41505	Oil	L-32-17S-28E	32.78970	-104.20250	Active	10/2/2013	-
Contango Resources, Inc.	NW STATE #006	30-015-30777	Oil	L-32-17S-28E	32.78990	-104.20310	Active	10/19/1999	-
APACHE CORPORATION	AB STATE 647 #011	30-015-41495	Oil	M-32-17S-28E	32.78610	-104.20310	Active	9/13/2013	-
APACHE CORPORATION	AB STATE 647 #014	30-015-41498	Oil	M-32-17S-28E	32.78440	-104.20270	Active	11/4/2013	-
APACHE CORPORATION	AB STATE 647 #007	30-015-41491	Oil	L-32-17S-28E	32.78810	-104.20320	Active	10/29/2013	-
Contango Resources, Inc.	ENRON STATE #002	30-015-31920	Oil	D-32-17S-28E	32.79520	-104.20320	Active	9/4/2001	-
CONOCOPHILLIPS COMPANY	ILLINOIS CAMP A COM #001	30-015-24485	Gas	E-05-18S-28E	32.77810	-104.20300	Active	5/28/1983	-
Contango Resources, Inc.	NORTHWEST ARTESIA UNIT #012	30-015-20043	Injection	M-32-17S-28E	32.78620	-104.20380	Active	4/29/1967	-
Contango Resources, Inc.	NW STATE #007	30-015-30685	Oil	M-32-17S-28E	32.78630	-104.20300	Active	8/30/1999	-
Contango Resources, Inc.	NW STATE #029	30-015-36554	Oil	L-32-17S-28E	32.78840	-104.20450	Active	1/21/2009	-
Contango Resources, Inc.	NW STATE #032	30-015-37058	Oil	M-32-17S-28E	32.78440	-104.20520	Active	8/12/2009	-
Contango Resources, Inc.	ENRON STATE #012	30-015-35050	Oil	D-32-17S-28E	32.79690	-104.20480	Active	11/20/2006	-
WALTER SOLT, LLC	WALTER SOLT STATE #001	30-015-25522	lt Water Dispos	L-05-18S-28E	32.77510	-104.20490	Active	1/9/1986	-
APACHE CORPORATION	AB STATE 647 #013	30-015-41497	Oil	M-32-17S-28E	32.78410	-104.20510	Active	10/10/2013	-
APACHE CORPORATION	AB STATE 647 #006	30-015-41503	Oil	L-32-17S-28E	32.78830	-104.20490	Active	8/30/2013	-
APACHE CORPORATION	AB STATE 647 #005	30-015-41502	Oil	L-32-17S-28E	32.78980	-104.20520	Active	8/23/2013	-
APACHE CORPORATION	AB STATE 647 #012	30-015-41496	Oil	M-32-17S-28E	32.78600	-104.20520	Active	9/19/2013	-
APACHE CORPORATION	AB STATE 647 #003	30-015-41501	Oil	K-32-17S-28E	32.79010	-104.20100	Active	10/23/2013	-
APACHE CORPORATION	AB STATE 647 #010	30-015-41494	Oil	N-32-17S-28E	32.78670	-104.20090	Active	10/16/2013	-
APACHE CORPORATION	AB STATE 647 #015	30-015-41504	Oil	N-32-17S-28E	32.78450	-104.20090	Active	9/26/2013	-
APACHE CORPORATION	AB STATE 647 #001	30-015-39927	Oil	K-32-17S-28E	32.78840	-104.20050	Active	8/11/2013	-
Contango Resources, Inc.	NW STATE #031	30-015-37057	Oil	N-32-17S-28E	32.78450	-104.20050	Active	7/21/2009	-
Contango Resources, Inc.	NW STATE #030	30-015-36989	Oil	K-32-17S-28E	32.78810	-104.20070	Active	7/7/2009	-
APACHE CORPORATION	AA STATE #001	30-015-01657	Oil	F-32-17S-28E	32.79170	-104.19990	Active	7/29/1960	-
Contango Resources, Inc.	NW STATE #005	30-015-30781	Injection	K-32-17S-28E	32.78880	-104.19930	Active	10/28/1999	-
Contango Resources, Inc.	NW STATE #008	30-015-30815	Injection	N-32-17S-28E	32.78660	-104.19930	Active	11/18/1999	-
APACHE CORPORATION	AB STATE 647 #008	30-015-41492	Oil	K-32-17S-28E	32.78740	-104.19870	Active	11/15/2013	-
APACHE CORPORATION	AB STATE 647 #016	30-015-41511	Oil	N-32-17S-28E	32.78450	-104.19850	Active	11/9/2013	-
APACHE CORPORATION	AB STATE 647 #009	30-015-41493	Oil	N-32-17S-28E	32.78660	-104.19800	Active	9/5/2013	-
APACHE CORPORATION	AB STATE 647 #002	30-015-41500	Oil	K-32-17S-28E	32.79010	-104.19790	Active	8/17/2013	-
Spur Energy Partners LLC	WAUKEE 36 STATE COM #051H	30-015-49019	Oil	L-31-17S-28E	32.78940	-104.22120	New	11/19/2021	-
Spur Energy Partners LLC	WAUKEE 36 STATE COM #011H	30-015-49018	Oil	L-31-17S-28E	32.78960	-104.22390	New	11/22/2021	-
Spur Energy Partners LLC	WAUKEE 36 STATE COM #010H	30-015-49026	Oil	M-31-17S-28E	32.78540	-104.22110	New	11/11/2021	-
Spur Energy Partners LLC	WAUKEE 36 STATE COM #002H	30-015-49020	Oil	M-31-17S-28E	32.78700	-104.22390	New	11/15/2021	-
APACHE CORPORATION	EMPIRE ABO UNIT #019A	30-015-05934	Oil	J-36-17S-27E	32.78780	-104.22900	Plugged (not released)	2/11/1964	6/8/2021
APACHE CORPORATION	EMPIRE ABO UNIT #223	30-015-22527	Oil	F-06-18S-28E	32.77610	-104.21730	Plugged (not released)	4/21/1978	7/23/2021

APACHE CORPORATION	EMPIRE ABO UNIT #023C	30-015-02625	Oil	B-06-18S-28E	32.78210	-104.21330	Plugged (not released)	10/11/1959	3/26/2021
APACHE CORPORATION	EMPIRE ABO UNIT #419	30-015-39011	Oil	O-31-17S-28E	32.78670	-104.21060	Plugged (not released)	10/11/2011	2/13/2018
APACHE CORPORATION	EMPIRE ABO UNIT #261	30-015-21539	Oil	N-32-17S-28E	32.78400	-104.20170	Plugged (not released)	6/24/1975	5/31/2017
APACHE CORPORATION	EMPIRE ABO UNIT #026E	30-015-02606	Oil	C-05-18S-28E	32.78270	-104.19990	Plugged (not released)	7/5/1960	1/15/2021
APACHE CORPORATION	EMPIRE ABO UNIT #026A	30-015-01659	Oil	N-32-17S-28E	32.78540	-104.19980	Plugged (not released)	1/26/1960	3/8/2021
BP AMERICA PRODUCTION COMPANY	EMPIRE ABO UNIT #019	30-015-01251	Oil	O-36-17S-27E	32.78510	-104.23000	Plugged (site released)	-	9/9/2009
APACHE CORPORATION	EMPIRE ABO UNIT #019B	30-015-00708	Oil	B-01-18S-27E	32.78150	-104.23000	Plugged (site released)	-	5/22/2013
KERSEY & COMPANY	RAMAPO #002	30-015-00687	Gas	I-36-17S-27E	32.78960	-104.22680	Plugged (site released)	-	6/14/1996
ASPEN OIL INC	GATES STATE #002	30-015-00647	Oil	H-36-17S-27E	32.79320	-104.22680	Plugged (site released)	-	10/31/2004
BP AMERICA PRODUCTION COMPANY	EMPIRE ABO UNIT #020	30-015-00677	Oil	P-36-17S-27E	32.78410	-104.22680	Plugged (site released)	-	9/9/2009
Contango Resources, Inc.	NO BLUFF 36 STATE COM #002	30-015-31123	Gas	H-36-17S-27E	32.79230	-104.22610	Plugged (site released)	3/18/2001	11/19/2020
APACHE CORPORATION	EMPIRE ABO UNIT #020D	30-015-01215	Oil	A-01-18S-27E	32.78140	-104.22570	Plugged (site released)	11/7/1959	5/19/2017
APACHE CORPORATION	EMPIRE ABO UNIT #020C	30-015-00711	Oil	H-01-18S-27E	32.77780	-104.22570	Plugged (site released)	-	7/8/2013
KERSEY & COMPANY	RAMAPO #001	30-015-00688	Oil	I-36-17S-27E	32.78960	-104.22470	Plugged (site released)	10/2/1941	6/18/1996
KERSEY & COMPANY	RAMAPO #003	30-015-00670	Oil	I-36-17S-27E	32.78960	-104.22470	Plugged (site released)	-	6/17/1996
PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #020	30-015-00685	Oil	I-36-17S-27E	32.78780	-104.22470	Plugged (site released)	-	9/7/1989
APACHE CORPORATION	EMPIRE ABO UNIT #411	30-015-39021	Oil	D-06-18S-28E	32.78310	-104.22310	Plugged (site released)	10/31/2011	3/18/2015
PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #001	30-015-01634	Oil	D-31-17S-28E	32.79680	-104.22250	Plugged (site released)	-	-
BP AMERICA PRODUCTION COMPANY	EMPIRE ABO UNIT #021	30-015-01647	Oil	M-31-17S-28E	32.78510	-104.22140	Plugged (site released)	-	7/23/2005
PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #001	30-015-01645	Oil	F-31-17S-28E	32.79500	-104.22040	Plugged (site released)	-	4/27/1951
PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #001	30-015-02626	Oil	F-06-18S-28E	32.77880	-104.21820	Plugged (site released)	-	3/3/1942
BP AMERICA PRODUCTION COMPANY	EMPIRE ABO UNIT #022A	30-015-01646	Oil	N-31-17S-28E	32.78510	-104.21680	Plugged (site released)	-	8/20/2009
BP AMERICA PRODUCTION COMPANY	EMPIRE ABO UNIT #022	30-015-01643	Oil	F-31-17S-28E	32.79140	-104.21620	Plugged (site released)	-	7/10/2009
BP AMERICA PRODUCTION COMPANY	EMPIRE ABO UNIT #022B	30-015-01651	Oil	K-31-17S-28E	32.78790	-104.21580	Plugged (site released)	-	2/10/2010
APACHE CORPORATION	EMPIRE ABO UNIT #408	30-015-39020	Oil	O-31-17S-28E	32.78370	-104.21460	Plugged (site released)	10/18/2011	1/18/2017
BP AMERICA PRODUCTION COMPANY	EMPIRE ABO UNIT #234	30-015-22593	Oil	G-06-18S-28E	32.77810	-104.21420	Plugged (site released)	-	11/25/2008
APACHE CORPORATION	EMPIRE ABO UNIT #231A	30-015-21626	Oil	G-06-18S-28E	32.77960	-104.21450	Plugged (site released)	-	7/1/2013
BP AMERICA PRODUCTION COMPANY	EMPIRE ABO UNIT #023D	30-015-02628	Oil	J-06-18S-28E	32.77520	-104.21360	Plugged (site released)	4/2/1960	12/5/2008
PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #001	30-015-02624	Oil	O-06-18S-28E	32.77160	-104.21360	Plugged (site released)	-	7/7/1961
PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #001	30-015-02611	Oil	J-06-18S-28E	32.77530	-104.21380	Plugged (site released)	-	8/20/1949
PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #001	30-015-00264	Oil	J-06-18S-28E	32.77530	-104.21380	Plugged (site released)	-	-
BP AMERICA PRODUCTION COMPANY	EMPIRE ABO UNIT #231B	30-015-22491	Oil	J-06-18S-28E	32.77360	-104.21390	Plugged (site released)	-	8/24/2009
PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #001	30-015-01636	Oil	C-31-17S-28E	32.79690	-104.21390	Plugged (site released)	-	-
BP AMERICA PRODUCTION COMPANY	EMPIRE ABO UNIT #233	30-015-22490	Oil	G-06-18S-28E	32.77640	-104.21290	Plugged (site released)	-	10/9/2009
PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #001	30-015-02618	Gas	J-06-18S-28E	32.77350	-104.21300	Plugged (site released)	-	12/1/1954
BP AMERICA PRODUCTION COMPANY	EMPIRE ABO UNIT #023A	30-015-01650	Oil	J-31-17S-28E	32.78790	-104.21270	Plugged (site released)	-	9/17/2003
BP AMERICA PRODUCTION COMPANY	EMPIRE ABO UNIT #023	30-015-01649	Oil	O-31-17S-28E	32.78520	-104.21260	Plugged (site released)	-	1/14/2010
PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #001	30-015-01653	Oil	O-31-17S-28E	32.78610	-104.21160	Plugged (site released)	-	1/22/1942
BP AMERICA PRODUCTION COMPANY	EMPIRE ABO UNIT #232A	30-015-22528	Oil	J-06-18S-28E	32.77530	-104.21130	Plugged (site released)	6/27/1978	10/9/2009
BP AMERICA PRODUCTION COMPANY	SLIDER 6 STATE #001	30-015-34028	Oil	G-06-18S-28E	32.77710	-104.21070	Plugged (site released)	6/19/2005	12/23/2008
APACHE CORPORATION	EMPIRE ABO UNIT #231	30-015-21542	Oil	B-06-18S-28E	32.77990	-104.21140	Plugged (site released)	-	6/13/2013
BP AMERICA PRODUCTION COMPANY	EMPIRE ABO UNIT #232	30-015-21737	Oil	G-06-18S-28E	32.77720	-104.21140	Plugged (site released)	-	10/9/2009
APACHE CORPORATION	EMPIRE ABO UNIT #235	30-015-22913	Oil	G-06-18S-28E	32.77860	-104.21140	Plugged (site released)	-	4/21/2010
PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #001	30-015-01638	Oil	A-31-17S-28E	32.79690	-104.20960	Plugged (site released)	-	10/31/1952
BP AMERICA PRODUCTION COMPANY	EMPIRE ABO UNIT #021A	30-015-01648	Oil	L-31-17S-28E	32.78800	-104.20980	Plugged (site released)	4/14/1960	8/24/2002
APACHE CORPORATION	EMPIRE ABO UNIT #024C	30-015-02616	Oil	H-06-18S-28E	32.77890	-104.20940	Plugged (site released)	-	6/7/2013
BP AMERICA PRODUCTION COMPANY	EMPIRE ABO UNIT #024K	30-015-02617	Oil	I-06-18S-28E	32.77530	-104.20950	Plugged (site released)	-	12/12/2002
BP AMERICA PRODUCTION COMPANY	EMPIRE ABO UNIT #241	30-015-23547	Oil	H-06-18S-28E	32.77810	-104.20840	Plugged (site released)	-	12/23/2008
BP AMERICA PRODUCTION COMPANY	EMPIRE ABO UNIT #024A	30-015-01644	Oil	I-31-17S-28E	32.78800	-104.20740	Plugged (site released)	-	6/15/2009
APACHE CORPORATION	EMPIRE ABO UNIT #251	30-015-22750	Oil	D-05-18S-28E	32.78170	-104.20570	Plugged (site released)	-	6/19/2013
PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #001	30-015-01654	Oil	D-32-17S-28E	32.79690	-104.20540	Plugged (site released)	-	5/12/1953
APACHE CORPORATION	EMPIRE ABO UNIT #025A	30-015-01662	Oil	L-32-17S-28E	32.78810	-104.20310	Plugged (site released)	-	5/16/2013
BP AMERICA PRODUCTION COMPANY	EMPIRE ABO UNIT #025B	30-015-01671	Oil	E-32-17S-28E	32.79160	-104.20320	Plugged (site released)	-	7/21/2008
LIME ROCK RESOURCES A, L.P.	NORTHWEST ARTESIA UNIT #009	30-015-10795	Oil	L-32-17S-28E	32.78990	-104.20420	Plugged (site released)	-	5/28/2008
MARBOB ENERGY CORP	LP STATE #001	30-015-31086	Oil	E-05-18S-28E	32.77900	-104.20300	Plugged (site released)	7/3/2000	3/11/2008
APACHE CORPORATION	EMPIRE ABO UNIT #025C	30-015-02607	Oil	D-05-18S-28E	32.78170	-104.20410	Plugged (site released)	-	6/25/2013
BP AMERICA PRODUCTION COMPANY	EMPIRE ABO UNIT #025	30-015-01660	Oil	M-32-17S-28E	32.78530	-104.20410	Plugged (site released)	-	6/30/2009
CONOCOPHILLIPS COMPANY	STATE E AI #001	30-015-02608	Oil	E-05-18S-28E	32.77890	-104.20520	Plugged (site released)	-	1/13/2006
MACK ENERGY CORP	STATE AG #001	30-015-10244	Oil	L-05-18S-28E	32.77530	-104.20520	Plugged (site released)	-	3/26/2001
BP AMERICA PRODUCTION COMPANY	EMPIRE ABO UNIT #261A	30-015-22697	Oil	C-05-18S-28E	32.78060	-104.20000	Plugged (site released)	-	6/15/2009
SDX RESOURCES INC	NORTHWEST ARTESIA UNIT #013	30-015-10834	Oil	N-32-17S-28E	32.78630	-104.19970	Plugged (site released)	-	11/1/2006
APACHE CORPORATION	EMPIRE ABO UNIT #026B	30-015-01661	Oil	K-32-17S-28E	32.78810	-104.19880	Plugged (site released)	3/13/1960	3/12/2021
SDX RESOURCES INC	NORTHWEST ARTESIA UNIT #008	30-015-10818	Oil	K-32-17S-28E	32.78990	-104.19950	Plugged (site released)	-	11/6/2006
APACHE CORPORATION	EMPIRE ABO UNIT #272	30-015-22009	Oil	O-32-17S-28E	32.78450	-104.19740	Plugged (site released)	2/8/1977	5/4/2021
APACHE CORPORATION	EMPIRE ABO UNIT #213	30-015-23116	Oil	E-06-18S-28E	32.77760	-104.22320	Temporary Abandonment	3/9/1980	-
APACHE CORPORATION	EMPIRE ABO UNIT #201	30-015-21553	Oil	H-01-18S-27E	32.77630	-104.22360	Temporary Abandonment	6/28/1975	-
APACHE CORPORATION	EMPIRE ABO UNIT #212	30-015-22637	Oil	E-06-18S-28E	32.77650	-104.22230	Temporary Abandonment	12/4/1978	-
APACHE CORPORATION	EMPIRE ABO UNIT #021D	30-015-02622	Oil	L-06-18S-28E	32.77500	-104.22140	Temporary Abandonment	12/27/1959	-
APACHE CORPORATION	EMPIRE ABO UNIT #211A	30-015-23548	Oil	L-06-18S-28E	32.77430	-104.22030	Temporary Abandonment	2/11/1981	-
APACHE CORPORATION	EMPIRE ABO UNIT #026D	30-015-02602	Oil	F-05-18S-28E	32.77900	-104.20090	Temporary Abandonment	11/28/1959	-
APACHE CORPORATION	EMPIRE ABO UNIT #417	30-015-39401	Oil	P-36-17S-27E	32.78630	-104.22560	Temporary Abandonment	1/9/2012	-

Attachment 7
Digital Data

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

COMMENTS

Action 139500

COMMENTS

Operator: NAVAJO REFINING COMPANY, L.L.C. P.O. Box 159 Artesia, NM 88211	OGRID: 15694
	Action Number: 139500
	Action Type: [C-103] NOI General Sundry (C-103X)

COMMENTS

Created By	Comment	Comment Date
cchavez	WDW-1 Fall-Off Test 2022	10/19/2022

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

CONDITIONS

Action 139500

CONDITIONS

Operator:	OGRID:
NAVAJO REFINING COMPANY, L.L.C. P.O. Box 159 Artesia, NM 88211	15694
	Action Number: 139500
	Action Type: [C-103] NOI General Sundry (C-103X)

CONDITIONS

Created By	Condition	Condition Date
cchavez	Conditions of Approval are as follows: 1) Tag and record well TD in advance of well workovers, testing & logging. 2) Devise injection approach, i.e., similar to SRT for inj. rate to plateau to achieve steady-state inject. rate prior to FOT monitoring. 3) Conduct wellbore cleaning prior to FOT to help reduce excessive skin value/effect (~73) observed in minimal radial flow period (Log-Log Plot) indicating prolonged well storage effects for test. 4) Test should reach and maintain radial flow condition sufficient for analysis of radial flow plot.	10/19/2022