

**UIC-1-8-3**

**EPA FALL-OFF  
TEST**

**2019**



May 15, 2019

Mr. Carl Chavez, CHMM  
NM Energy, Minerals & Natural Resources Department  
Oil Conservation Division, Environmental Bureau  
1220 South St. Francis Dr.  
Santa Fe, NM 87505-5472

**RE: 2019 Pressure Fall Off Testing for Wells WDW-1, WDW-2 and WDW-3, HollyFrontier Navajo Refining LLC**

Dear Mr. Chavez,

Enclosed, please find the C-103's for the Pressure Fall Off Testing schedule for 2019. This schedule is a notification upon approval and equipment availability to perform WDW-1, WDW-2 and WDW-3. As is the case for testing, I will notify you and the OCD Office in Artesia of actual dates and times. As per our letter request for WDW-4 dated 4/16/2019, WDW-4 will be tested June, 2020. If there are any questions, please contact Randy Dade at 575-746-5281.

Respectfully,

Lewis R. Dade  
Environmental Specialist  
HollyFrontier Navajo Refining LLC

Electronic cc: S Denton, R Combs  
Env. File: Env./ Injection Wells / Pressure Fall Off Tests / 2019



April 16, 2019

Mr. Carl Chavez, CHMM  
NM Energy, Minerals & Natural Resources Department  
Oil Conservation Division, Environmental Bureau  
1220 South St. Francis Dr.  
Santa Fe, NM 87505-5472

RE: 2019 Fall Off Testing for Wells WDW-1, WDW-2, WDW-3 and WDW-4  
HollyFrontier Navajo Refining LLC

Dear Mr. Chavez,

As per our conversation on March 26, 2019 concerning Pressure Fall Off Testing (FOT) of Navajo's UIC program injection wells. Navajo is proposing performing FOT on wells WDW-1, WDW-2 and WDW-3 for the 2019 period and adding well WDW-4 starting in 2020.

WDW-4, (30-015-44677) had the initial FOT performed in October 2018. The test was performed on the newly drilled open hole formation with an injection rate of 420 gpm of 8.9 ppg fluid for approximately 9 hours. The well was shut in and the pressure falloff was monitored for 24 hours. This data gathered during this test showed that WDW-4 would exceed the initial reservoir modeling resulting in lower injection pressures and have a smaller cone of influence and lower pressure buildup as originally calculated in the original permit. WDW-4 was put into service on January 16, 2019 and has been in continual service since that date.

Please find enclosed the initial FOT for WDW-4 (UICI-8-4) and C-115's for all four wells for January, February and March 2019. WDW-4 has injected a total of 710,571 barrels through March 31<sup>st</sup>, 2019 with a monthly average of 236,857 barrels per month. The injection pressure is averaging 62.7 psig. Navajo requests that the 2020 Fall Off Tests occur in the second and third quarters of 2020 to have all four wells on the same testing schedule. This will allow for collection of 18 months of injection data for WDW-4. WDW-4 has been performing to our expectations and Navajo feels that there is little to no benefit in performing a FOT on WDW-4 with less than one full year of quality data.

If there are any questions, please contact Scott Denton at 575-746-5487.

Respectfully,

Scott M. Denton  
Environmental Manager  
HollyFrontier Navajo Refining LLC

**HollyFrontier Navajo Refining LLC**  
501 East Main • Artesia, NM 88210  
(575) 748-3311 • <http://www.hollyfrontier.com>

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

Form C-103  
Revised July 18, 2013

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

WELL API NO. 30-015-26575
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No. B-2071-28
7. Lease Name or Unit Agreement Name GAINES WDW-3
8. Well Number: WDW-3 OGRID Number : 15694
10. Pool name or Wildcat PENN 9691

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.)

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

2. Name of Operator  
HOLLYFRONTIER NAVAJO REFINERY LLC

3. Address of Operator  
P.O. BOX 159, ARTESIA, NM. 88210

4. Well Location

Unit Letter N 790 feet from the SOUTH line and 2250 feet from the WEST line

Section: 1 Township: 18S Range: 27E NMPM County: EDDY

11. Elevation (Show whether DR, RKB, RT, GR, etc.)  
3609' GL

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

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐  
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐  
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐  
DOWNHOLE COMMINGLE ☐  
CLOSED-LOOP SYSTEM ☐  
OTHER: PRESSURE FALL OFF TEST

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐  
COMMENCE DRILLING OPNS. ☐ P AND A ☐  
CASING/CEMENT JOB ☐

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.

AUG,2019; Day 1; Install bottomhole gauge into GAINES WDW-3 . Continue Injection into all four (4) wells.

AUG,2019; Day 2; Continue normal Injection into all four (4) wells.

AUG,2019; Day 3 : A constant Injection Rate will be established in WDW-1, WDW-2and WDW-4. A constant injection rate will be established in the GAINES WDW-3 at 160 gpm and continue for a 30 hour injection period. Wellhead pressure will not exceed 1400 psig. Plant personnel will record rate, volume, and pressure during this 30 hours for all wells to confirm that a constant pre-falloff injection rate is maintained. Samples of the injection fluid will be collected every 10 hours and analyzed for ph and specific gravity.

AUG,2019; Day 4: WDW-3 will be shut in for a 30-hour falloff period. WDW-1, WDW-2 and WDW-4 will continue constant injection rates of 160 gpm.

AUG, 2019; Day 5: GAINES WDW-3 will continue to be shut in while monitoring falloff pressure.

AUG,2019; Day 6: Acquire downhole pressure gauge from GAINES WDW-3. Tag bottom of fill and come out of hole very slowly, making 7-minute gradient stops every 1000 feet ( 7000 ft, 6000 ft, 5000 ft, 4000 ft, 3000 ft, 2000 ft, 1000 ft, surface). Well turned back over to Navajo.

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 Dade*

TITLE: Env. Spec. DATE: 5/15/2019

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

For State Use Only

APPROVED BY: *Lewis Dade* TITLE: Environmental Engineer DATE: 5/17/19

Conditions of Approval (if any):