

Submit a 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

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.)		WELL API NO.
1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/>		5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input type="checkbox"/>
2. Name of Operator		6. State Oil & Gas Lease No.
3. Address of Operator		7. Lease Name or Unit Agreement Name
4. Well Location Unit Letter _____: _____ feet from the _____ line and _____ feet from the _____ line Section _____ Township _____ Range _____ NMPM _____ County _____		8. Well Number
11. Elevation (Show whether DR, RKB, RT, GR, etc.)		9. OGRID Number
		10. Pool name or Wildcat

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>	
DOWNHOLE COMMINGLE <input type="checkbox"/>			
CLOSED-LOOP SYSTEM <input type="checkbox"/>			
OTHER: <input type="checkbox"/>		OTHER: <input type="checkbox"/>	

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.

Spud Date:

Rig Release Date:

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

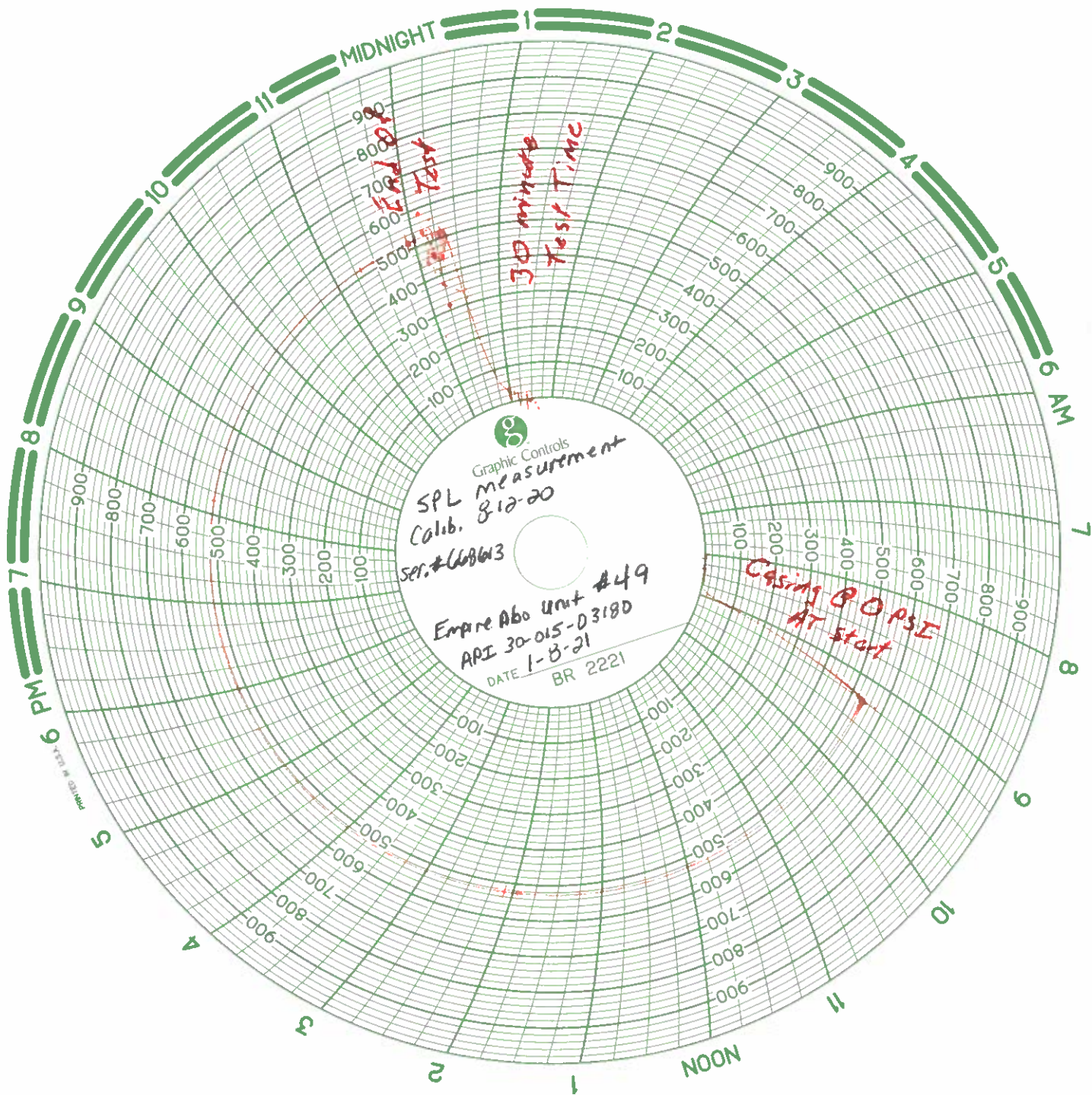
SIGNATURE alicia fulton TITLE _____ DATE _____

Type or print name _____ E-mail address: _____ PHONE: _____

For State Use Only

APPROVED BY: Kurt Simmons TITLE Petroleum Specialist DATE 02/08/2021

Conditions of Approval (if any):



State of New Mexico
Energy, Minerals and Natural Resources Department

Michelle Lujan Grisham
Governor

Sarah Cottrell Propst
Cabinet Secretary

Todd E. Leahy, JD, PhD
Deputy Cabinet Secretary

Adrienne Sandoval
Director, Oil Conservation Division



January 6, 2021

By Electronic Mail

Ms. Reesa Fisher
Senior Regulatory Analyst
Apache Corporation
303 Veterans Airpark Lane, #1000
Midland, Texas 79705
reesa.fisher@apachecorp.com

RE: Request for Bradenhead Testing

Ms. Fisher,

On December 24, 2020 the New Mexico Oil Conservation Division (OCD) sent Apache a request to cease injection into two wells; Empire Abo Unit #49 (API 30-015-03180) and Empire Abo Unit #50 (API 30-015-03184) as they are located near an incident where substantial volumes of produced water and hydrogen sulfide gas have recently been appearing at the surface in Eddy County west of Loco Hills, New Mexico (latitude 32.801639°, longitude -104.088583°).

As the OCD continues to identify the causes of this release, we are compiling information on the injection wells that have been shut in. As part of that effort, Apache needs to complete bradenhead testing to collect pressure measurement of the annular spaces between casings and pressure measurements of tubing. The following requirements for the testing must be observed or the results will be considered unacceptable.

- 1) Verify that the valves other than on the tubing string have been shut in at least 24 hours prior to the test.
- 2) All annulus valves are properly identified, and all gauges are properly installed.
- 3) All necessary gauges are properly functioning and calibrated with documentation to support the calibrations.
- 4) The necessary gauges are an appropriate scale to accurately measure the pressures.
- 5) Ensure all pressures are accurate and properly recorded.
- 6) All personnel performing the test are trained and competent in performing the testing.

Initial Pressure Measurements

- 1) Measure and record the initial pressures on the tubing string, surface casing, all intermediate casings, and production casing.
- 2) If there is zero initial pressure or the pressure immediately blows down, continue to flow a minimum of 15 minutes to see if there is a water flow.

January 6, 2021

Page 2

Flowing Pressure Measurements

- 1) Testing time will be for a minimum of 30 minutes for each annulus with measurements recorded at 5-minute intervals.
- 2) The flowing stage of the test is to be performed while the bradenhead (surface casing) valve is open to the atmosphere. Similarly, the intermediate valve will be opened for the intermediate annulus test.
- 3) The flowing tests are to be performed consecutively on each annular space, starting with the bradenhead or surface casing annulus and ending with the innermost annulus.
- 4) Upon completing the flow test and with all valves shut for a minimum of 5 minutes, observe and record the individual annular pressures.
- 5) In addition to pressure measurements, record the flow characteristics (puff, continuous, surge, down to nothing) and any fluid type (gas, oil, vapor, water, mud) observed being discharged from the annulus.

Reporting of the information should be provided on an OCD form C-103 for each of the wells tested and include photographic documentation of gauge readings along with the names of the personnel who conducted each test.

Please conduct these inspections and provide the results to me no later than **Monday, January 11, 2021**.

If a test indicates a potential failure, high unexplained pressures, or communication between the annuli, immediately report these observations to me and follow up with a Notice of Intent to investigate and repair issues, as necessary.

For any questions or further direction, please contact me at 505-660-1067 or by email at jim.griswold@state.nm.us.

Respectfully,



Jim Griswold

cc: Javier Berdoza, Apache; javierberdoza@apachecorp.com

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

CONDITIONS

Action 14668

CONDITIONS OF APPROVAL

Operator:		OGRID:	Action Number:	Action Type:
#1000	APACHE CORPORATION Midland, TX79705	303 Veterans Airpark Ln 873	14668	C-103Z
OCD Reviewer	Condition			
ksimmons	None			