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Form 3160-5
(March 2012)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APR 26 2016

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2014**SUNDRY NOTICES AND REPORTS ON WELLS**
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.5. Lease Serial No.
NMM013686
6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE – Other instructions on page 2.

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other2. Name of Operator
BP America Production Company3a. Address
737 North Eldridge Parkway, 12.181A
Houston, TX 770793b. Phone No. (include area code)
281-366-71484. Location of Well (Footage, Sec., T., R., M., or Survey Description)
Sec. 34 T31N R09W NENW 615FNL 1840FWL

7. If Unit of CA/Agreement, Name and/or No.

8. Well Name and No.
Pritchard SWD 19. API Well No.
30-045-2835110. Field and Pool or Exploratory Area
SWD; Morrison Bluff Entrada11. County or Parish, State
San Juan, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other Step Rate Test
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

BP America Production Company respectfully requests to perform a step rate test on the subject disposal well. Please see the attached plan of operations.

See Attached OCD
Step rate test Guidelines

OIL CONS. DIV DIST. 3

MAY 02 2016

Notify NMOCD 24 hrs
prior to beginning
operations

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

Toya Colvin

Title Regulatory Analyst

Signature

Date 04/21/2016

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Abdelgadir Elmadani

Title

PE

Date

4/28/16

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

FFO

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

NMOCD

K4

PRITCHARD 001 SWD

Morrison, Bluff, Entrada – Water injection

API# 30-045-28351

Unit C – Sec 34 – T31N – R09W

San Juan County, New Mexico

Step Rate Test Procedure:

Prior to performing the step rate test, the building setting over the wellhead must be removed by a roustabout crew. Ensure that water storage tanks are completely full before initiating the step rate tests. Water storage capacity on location is 2000 bbls, available capacity for the test is 1000+ bbls. Must contact the NMOCD prior to the step rate test so that they can have a representative witness the test.

1. Shut-in well for 24 hours prior to running step rate tests.
2. RU wireline unit and lubricator. Trip in hole with tandem pressure bombs capable of measuring pressure from 0 psig to 10,000 psig. Land bombs in 2.66" ID XN-seating nipple at approx. 7994'. Record the exact time that the gauge is set in the seating nipple.
 - The gauge should allow water to pass by
 - Program bombs to take readings every 5 seconds throughout the test.
3. RU pump trucks (if required provide second pump truck to span range of injection rates for step rate test). Tie suction to disposal tanks and discharge to tubing. Pressure test lines and connections. Monitor casing and bradenhead pressures during the test.
4. Perform step rate test as follows:

<u>Step</u>	<u>Time</u>	<u>Injection Rate</u>		<u>Cum Inj Vol</u>
		(BPM)	(BWPD)	BW
1	20 min	0.3	432	6
2	20 min	0.6	864	12
3	20 min	0.9	1296	18
4	20 min	1.2	1728	24
5	20 min	1.5	2160	30
6	20 min	1.8	2592	36
7	20 min	2.1	3024	42
8	20 min	2.4	3456	48
9	20 min	2.7	3888	54
10	20 min	3.0	4720	60
11	20 min	3.3	4752	66
12	20 min	3.6	5184	72
13	20 min	3.9	5616	78
14	20 min	4.2	6048	84
Elapsed time: 280 min				Total = 630 bbls

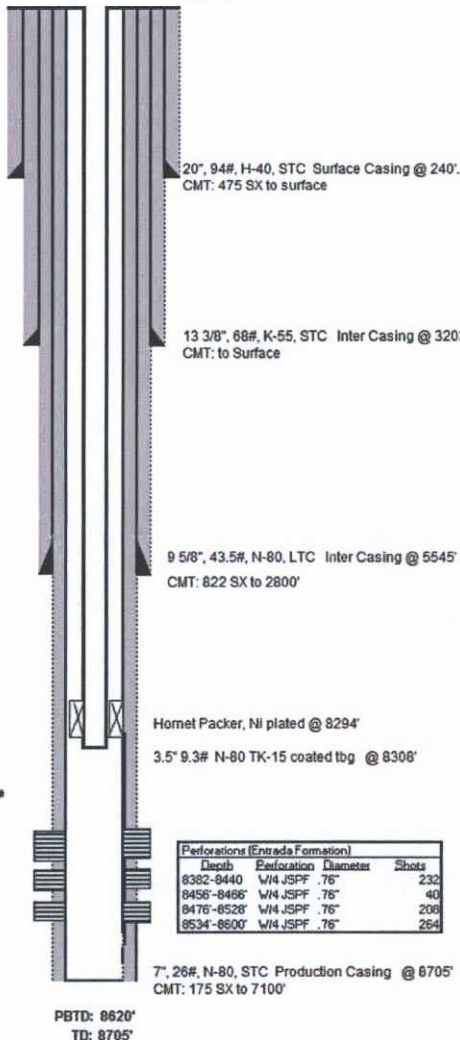
- Continuously monitor surface injection pressure and rate in a digital format.
- It is critical to maintain the set time-steps. Do not shorten or lengthen the time steps.
- Once an injection rate has been established at or near the requested rate, every effort must be made to keep the rate constant.

5. Shut down and record ISIP.
6. After performing the step rate test, trip out of hole with pressure gauges.
7. Return well to injection.



Pritchard SWD #001
Coal
API # 30-045-28351
Unit C - Sec 34 - T31N - R09W
San Juan County, New Mexico

KB: 12'



Length	Tubing Assembly (as run 1/11/2013)
	(31 lbs) 3 1/2" EUE 8 RD N-80 TK-15 internally coated plastic tbg
675	
10	Ni plated 3 1/2" EUE 8RD N-80 pup #
2	Ni plated 3 1/2" EUE 8RD N-80 pup #
	(230 lbs) 3 1/2" EUE 8 RD N-80 TK-15 internally coated plastic tbg
7286	
	BX Profile nipple 3 1/2" EUE 8RD 9 chrome (2.812" ID)
1.4	
6	Ni plated 3 1/2" EUE 8RD N-80 pup #
	600-282 Mechanical set homel packer ni plated
8	
4	Ni plated 3 1/2" EUE 8RD N-80 pup #
	BXH Profile nipple 3 1/2" EUE 8RD 9 chrome (2.68" ID No-Go)
1.65	
0.5	WL Entry guide

Formation Tops:

Ojo Alamo	1600'
Frutland	2600'
Pictured Cliffs	2912'
Levis	3060'
Mesaverde	4680'
Mancos	5475'
Gallup	6262'
Dakota	7280'
Monison	7525'
Bluff	7323'
Entrada	8377'

Perforations (Entrada Formation)			
Depth	Perforation	Diameter	Shots
8382-8440	W/H JSPF	.76"	232
8456-8496	W/H JSPF	.76"	40
8476-8528	W/H JSPF	.76"	206
8534-8600	W/H JSPF	.76"	264

OCD Guidelines for conducting step-rate tests

The operator must submit a written procedure and rig-up diagram to the OCD at least 24 hours before starting the test. The procedure will contain the following information:

- A description of the mechanical configuration of the well.
- The history of injection pressures and volumes.
- The history of any fracture treatments and pressures especially ISIP.

A bottom hole pressure recorder will be required for wells deeper than 2000' and injection rates greater than 1 BPM.

A pressure gauge and recorder of the appropriate range will be used during the test.

Wells currently injecting must be shut-in at least 24 hours before the test unless the shut-in pressures indicate that the well has not adequately stabilized and a longer time is necessary.

Starting pump rates and pressures must be lower than the current rates and pressures if the well is currently injecting and there must be at least 3 steps below the .2psi/ft gradient and 3 steps above the break-over point. Wells that are not fractured should not be tested at pressures that exceed the fracture gradient.

Pumping equipment must be able to pump at the rates and pressures needed for the test.

Rate changes will be .5bpm or smaller unless the OCD witness determines that bigger rate changes are necessary due to small incremental increases in pressure.

Each step will be at least 15 minutes in duration unless otherwise determined by the OCD. Step duration must not be changed during the test.

The operator must have enough water on hand for the test.

The casing and bradenhead pressures will be monitored during the test.

All wellhead equipment must be rated for the anticipated pressures.