

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OGD Artesia

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

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.
NMNM-0557371

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE – Other instructions on page 2.

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

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
AAO FEDERAL #16 <308703>

2. Name of Operator
APACHE CORPORATION

Contact: SORINA FLORES

9. API Well No.
30-015-42026

3a. Address
303 VETERANS AIRPARK LN #1000
MIDLAND, TEXAS 79705

3b. Phone No. (include area code)
432-818-1167

10. Field and Pool or Exploratory Area
RED LAKE; GLORIETA-YESO, NW <96836>

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
SHL: 1305' FNL & 2455' FWL
BHL: 1650' FNL & 2310' FWL

11. Country or Parish, State
SEC 1, T18S, R27E

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

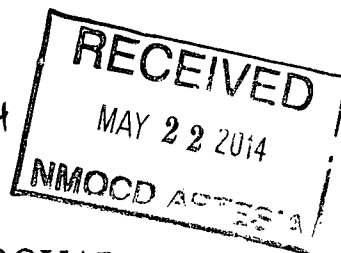
TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> 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 type="checkbox"/> Other _____
	<input checked="" 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 oprator has determined that the site is ready for final inspection.)

BOND#: BLM-CO-1463 NATIONWIDE / NMB000736

Apache proposes to change the casing/cement/BOP program as shown on the following pages.

Accepted for record
NMOC D 16
5-23-14
SEE ATTACHED FOR
CONDITIONS OF APPROVAL



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

Sorina L Flores

Title SUPV OF DRILLING SERVICES

Signature

Date 03/13/2014

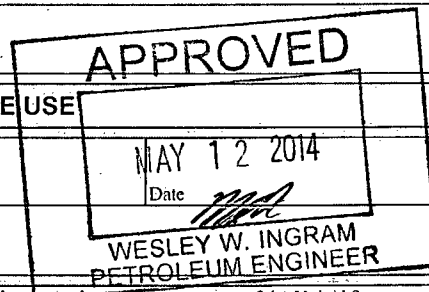
THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Office

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.



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)

Apache proposes to change the casing/cement/BOP program as shown below.

In the event that cement IS circulated to surface on the primary cement job for the surface casing:

1. Casing Program: All casing is new & API approved

HOLE SIZE	DEPTH	OD CSG	WEIGHT	COLLAR	GRADE	COLLAPSE	BURST	TENSION
17-1/2"	0' - 350'	13-3/8"	48#	STC	H-40	1.125	1.0	1.8
7-7/8"	0'-4529'	5-1/2"	17#	LTC	J-55	1.125	1.0	1.8

2. CEMENT PROGRAM:

A. 13-3/8" Surface (Cmt to surf / 100% excess cmt):

Single Slurry: 420 sx Class C w/ 1% CaCl₂ + 0.25% R38 (14.8 wt, 1.34 yld, 6.33 gal/sk)

Comp Strengths: 12 hr - 813 psi 24 hr - 1205 psi

If lost circulation is encountered while drilling the 17-1/2" hole, 200 sx Class C thixotropic cement (14.4 wt, 1.55 yld, 6.65 gal/sk) may be pumped ahead of the cement slurry shown above.

B. 5-1/2" Production (Cmt to surf / 20 % excess cmt):

Lead: 410 sx (35:65) Poz C w/ 5% Salt + 0.25% R38 + 6% Bentonite (12.4 wt, 2.1 yld, 10.57 gal/sk)

Compressive Strengths: 12 hr - 589 psi 24 hr - 947 psi

Tail: 260 sx (50:50) Poz C w/ 5% Salt + 0.25% R38 + 2% Bentonite (14.2 wt, 1.28 yld, 5.88 gal/sk)

Compressive Strengths: 12 hr - 1379 psi 24 psi - 2332 psi

3. PROPOSED CONTROL EQUIPMENT

An 11" 3M psi WP BOP stack consisting of an annular bag type preventer, middle pipe rams, and bottom blind rams will be nipped up on the 13-3/8" surface casing head and tested to 70% of casing burst. The BOP will be utilized continuously until TD is reached. The maximum surface pressure is not expected to exceed 2000 psi. BHP is calculated to be approximately 1980 psi. All BOPs and associated equipment will be tested per BLM *Drilling Operations Order #2*. The BOP will be operated and checked each 24-hour period and the blind rams will be operated and checked when the drill pipe is out of the hole. Function tests will be documented on the daily driller's log. A 3000 psi choke manifold with a 3" panic line will be installed. A full opening stabbing valve & kelly cock will be on the derrick floor in case of need. No abnormal pressures or temperatures are expected in this well. No nearby wells have encountered any well control problems.

In the event that cement IS NOT circulated to surface on the primary cement job for the surface casing:

1. Casing Program: All casing is new & API approved

HOLE SIZE	DEPTH	OD CSG	WEIGHT	COLLAR	GRADE	COLLAPSE	BURST	TENSION
17-1/2"	0' - 350'	13-3/8"	48#	STC	H-40	1.125	1.0	1.8
11"	0' - 400'	8-5/8"	24#	STC	J-55	1.125	1.0	1.8
7-7/8"	0'-4529'	5-1/2"	17#	LTC	J-55	1.125	1.0	1.8

2. CEMENT PROGRAM:

A. 13-3/8" Surface (Cmt to surf / 100% excess cmt):

Single Slurry: 420 sx Class C w/ 1% CaCl₂ + 0.25% R38 (14.8 wt, 1.34 yld, 6.33 gal/sk)

Comp Strengths: 12 hr - 813 psi 24 hr - 1205 psi

If lost circulation is encountered while drilling the 17-1/2" hole, 200 sx Class C thixotropic cement (14.4 wt, 1.55 yld, 6.65 gal/sk) may be pumped ahead of the cement slurry shown above.

B. 8-5/8" Intermediate (Cmt to surf / 50% excess cmt):

Single Slurry: 220 sx Class C w/ 1% CaCl₂ + 0.25% R38 (14.8 wt, 1.34 yld, 6.33 gal/sk)

Comp Strengths : 12 hr – 813 psi 24 hr – 1205 psi

C. 5-1/2" Production (Cmt to surf / 20 % excess cmt):

Lead: 310 sx (35:65) Poz C w/ 5% Salt + 0.25% R38 + 6% Bentonite (12.4 wt, 2.1 yld, 10.57 gal/sk)
Compressive Strengths: 12 hr – 589 psi 24 hr – 947 psi

Tail: 260 sx (50:50) Poz C w/ 5% Salt + 0.25% R38 + 2% Bentonite (14.2 wt, 1.28 yld, 5.88 gal/sk)
Compressive Strengths: 12 hr – 1379 psi 24 psi – 2332 psi

3. PROPOSED CONTROL EQUIPMENT

An 11" 3M psi WP BOP stack consisting of an annular bag type preventer, middle pipe rams, and bottom blind rams will be nipped up on the 13-3/8" surface casing head and tested to 70% of casing burst. After intermediate casing is set and cemented the BOP will be nipped up on the casing spool and tested to 2000 psi. The BOPE will be utilized continuously until TD is reached. The maximum surface pressure is not expected to exceed 2000 psi. BHP is calculated to be approximately 1980 psi. All BOP's and associated equipment will be tested per BLM *Drilling Operations Order #2*. The BOP will be operated and checked each 24-hour period and the blind rams will be operated and checked when the drill pipe is out of the hole. Function tests will be documented on the daily driller's log. A 3000 psi choke manifold with a 3" panic line will be installed. A full opening stabbing valve & kelly cock will be on the derrick floor in case of need. No abnormal pressures or temperatures are expected in this well. No nearby wells have encountered any well control problems.

**AAO Federal 16
30-015-42026
Apache Corporation
March 25, 2014
Conditions of Approval**

1. The minimum required fill of cement behind the 5-1/2 inch production casing is:

Operator has proposed DV tool at depth of 1100', but will adjust cement proportionately if moved. DV tool shall be set a minimum of 50' below previous shoe and a minimum of 200' above current shoe. Operator shall submit sundry if DV tool depth cannot be set in this range. If an ECP is used, it is to be set a minimum of 50' below the shoe to provide cement across the shoe. If it cannot be set below the shoe, a CBL shall be run to verify cement coverage.

- a. First stage to DV tool:

☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator should have plans as to how they will achieve circulation on the next stage.

- b. Second stage above DV tool:

☒ Cement shall circulate to surface. If cement does not circulate, contact the appropriate BLM office.

WWI 032514