

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB NO. 1004-0135  
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.*

**RECEIVED**  
MAY 21 2013  
NMOCD ARTESIA

5. Lease Serial No.  
NMLC029426B

6. If Indian, Allottee or Tribe Name

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

**SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

1. Type of Well  
 Oil Well  Gas Well  Other

8. Well Name and No.  
CROW FEDERAL 14H

2. Name of Operator  
APACHE CORPORATION  
Contact: SORINA L FLORES

9. API Well No.  
30-015-40578-00-X1

3a. Address  
303 VETERANS AIRPARK LANE SUITE 3000  
MIDLAND, TX 79705

3b. Phone No. (include area code)  
Ph: 432.818.1167

10. Field and Pool, or Exploratory  
CEDAR LAKE

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
Sec 10 T17S R31E SWSW 923FSL 250FWL  
32.844257 N Lat, 103.684769 W Lon

11. County or Parish, and State  
EDDY COUNTY, NM

**12. CHECK 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 Change to Original APD
	<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 recomplete 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 shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

BOND#: BLM-CO-1463 / NMB000736

Apache proposes to change the following casing/Cmt/BOP program:

Hole	Depth	OD	Csg	Wt	Collar	Grade	Clpse	Burst	Tension
Surf	17-1/2?	0-575?	13-3/8?	48#	STC	H-40	1.0	1.21	1.8
Intern	11?	0-3500?	8-5/8?	32#	STC	J-55	1.0	1.21	1.8
Prod	7-7/8?	0-10775?	5-1/2?	17#	LTC	J-55	1.0	1.21	1.8

Surface (TOC ? Surface) \*100% excess cmt to surf\* Cmt with:  
Lead: 245sx Cl H 50/50 w/10% Gel + 0.5# Star Seal + 0.25% De-foamer + 3% Salt  
(11.9 wt, 2.31 yld) Comp Strengths: 12 hr - 589psi 24 hr ? 947psi

**SEE ATTACHED FOR  
CONDITIONS OF APPROVAL**

*CR Scale 5/24/13*  
Accepted for record  
NMOCD

14. I hereby certify that the foregoing is true and correct.

**Electronic Submission #207737 verified by the BLM Well Information System  
For APACHE CORPORATION, sent to the Carlsbad  
Committed to AFMSS for processing by CHRISTOPHER WALLS on 05/17/2013 (13CRW0118SE)**

Name (Printed/Typed)	SORINA L FLORES	Title	SUPERVISOR - DRILLING SERVICES
Signature	(Electronic Submission)	Date	05/16/2013

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved By	<u>CHRISTOPHER WALLS</u>	Title	PETROLEUM ENGINEER	Date	05/17/2013
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 Carlsbad		

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.

**Additional data for EC transaction #207737 that would not fit on the form**

**32. Additional remarks, continued**

Tail: 245 sx CI C w/ 0.25% De-foamer  
(14.8 wt, 1.33 yld) Comp Strengths: 12 hr ? 813psi 24 hr ? 1205psi

Intermediate (TOC ? Surface) \*50% excess cmt to surf\*. Cmt with:  
Lead: 515 sx CI H 50/50 w/10% Gel + 2# Star Seal + 0.25% De-foamer  
(11.9 wt, 2.24 yld) Comp Strengths: 12 hr ? 540psi 24 hr ? 866psi

Tail: 300 sx Class C w/1% CaCL + 0.25% De-foamer  
(14.8 wt, 1.34 yld) Comp Strengths: 12 hr ? 813psi 24 hr ? 1205psi

Production (TOC: ~2500? from surface) \*30% excess cmt\* Cmt with:  
Lead: 200 sx CI H 50/50 w/10% Gel + 2# Star Seal + 0.25% Defoamer  
(11.9 wt, 2.24 yld) Comp Strengths: 12 hr ? 540psi 24 hr ? 866psi

Tail: 955 sx PVL w/1.3% Salt + 0.25% De-foamer + 3% Expanding cmt + 0.5% Gel suppressing agent +  
0.1% Antisetting agent + 0.6% Retarder  
(13.0 wt, 1.47 yld) Comp Strengths: 12 hr ? 800psi 24 psi ? 1000psi

BOP: 11? 3M BOP consisting of an annular bag type preventer, middle blind rams and bottom pipe rams  
will be nipped up on the 13-3/8? surf csg head, tested to 70% of csg burst and utilized  
continuously until TD is reached. All BOP?s & associated equipment will be tested as per BLM  
Drilling Operations Order #2.

## CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Apache Corp
LEASE NO.:	LC029426B
WELL NAME & NO.:	14H Crow Federal
SURFACE HOLE FOOTAGE:	923' FSL & 250' FWL
LOCATION:	Section 10, T.17 S., R.31 E., NMPM
COUNTY:	Eddy County, New Mexico

### A. CASING

1. The **13-3/8** inch surface casing shall be set at approximately **575** feet (**a minimum of 25 feet into the Rustler Anhydrite and above the salt**) and cemented to the surface.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
  - b. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**
  - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
  - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The minimum required fill of cement behind the **8-5/8** inch intermediate casing is:
  - Cement to surface. If cement does not circulate see B.1.a, c-d above.
3. The minimum required fill of cement behind the **7** inch production casing is:
  - Cement as proposed. Operator shall provide method of verification.
4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

## B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. **In the case where the only BOP installed is an annular preventer, it shall be tested to a minimum of 2000 psi (which may require upgrading to 3M or 5M annular).**
3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** psi.
4. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips or where the float does not hold, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
  - b. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (18 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
  - c. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock.
  - d. The results of the test shall be reported to the appropriate BLM office.
  - e. All tests are required to be recorded on a calibrated test chart. **A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.**

- f. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

CRW 051713