Carlsbad Field Office OCD Hobbs

Form 3160-5
(August 2007)

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.

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

5. Lease Serial No.
NMNM90161

6. If Indian, Allottee or Tribe Name

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

1. Type of Well
☐ Oil Well ☐ Gas Well ☒ Other: injection / UNKNOWN OTH

8. Well Name and No.
HAWK B-1 09 WBDU #39

2. Name of Operator
APACHE CORPORATION ✓
Contact: REESA FISHER
E-Mail: Reesa.Fisher@apachecorp.com

9. API Well No.
30-025-06441-00-C1

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

3b. Phone No. (include area code)
Ph: 432-818-1062

10. Field and Pool, or Exploratory
Multiple--See Attached

HOBBS OCD

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 9 T21S R37E SWSW 660FSL 660FWL ✓
32.487962 N Lat, 103.174390 W Lon

MAY 05 2016

RECEIVED

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

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

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☒ Recomplete	☐ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ 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.)

After meeting with the BLM concerning our waterflood program, Apache would like to amend our procedure to recomplete in the Drinkard portion of the formation, per the attached. This work will be completed within the next 6-12 months. Current and proposed WBD's are also attached.

SEE ATTACHED FOR CONDITIONS OF APPROVAL

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

Electronic Submission #334250 verified by the BLM Well Information System
For APACHE CORPORATION, sent to the Hobbs
Committed to AFMSS for processing by PRISCILLA PEREZ on 03/23/2016 (16PP0470SE)

Name *(Printed/Typed)* REESA FISHER — Title SR STAFF REGULATORY ANALYST

Signature (Electronic Submission) — Date 03/21/2016

APPROVED

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By _____ Title _____ Date APR 22 2016

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 BUREAU OF LAND MANAGEMENT CARLSBAD FIELD OFFICE

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.

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

MAY 06 2016

Additional data for EC transaction #334250 that would not fit on the form

10. Field and Pool, continued

EUNICE
TUBB OIL & GAS

WBDU 39W (API: 30-25-06441) Proposed Procedure

Squeeze Blinebry perforations, clean out well, recomplete and stimulate Drinkard

March 18, 2016

Day 1: MIRU. Install BOP. Release 7" packer and POOH w/ 2-3/8" IPC injection tubing and packer.

Day 2: PU & RIH w/ 6-1/8" bit and scraper on 2-7/8" work string to +/- 6200'. POOH w/bit and scraper. RIH w/CBP on 2-7/8" work string. Set CBP @ +/- 6,090'. POOH w/ 2-7/8" work string. Dump 8' of sand on top of CBP (approximately 170 lbs 16/30 sand. Confirm volumes).

Day 3: RIH w/ CICR on 2-7/8" work string. Set CICR & +/- 5600'. MIRU cement crew. Sting into CICR and establish rate into Blinebry perforations. Cement Blinebry perforations with +/- 250 sx of Class C cement (weight 14.8 ppg, yield 1.33 cf/sack). Displace w/ 30 BBL fresh water (confirm volumes). Sting out of CICR and POOH w/ 2-7/8" work string.

Day 4: Allow 24 hours for cement to set.

Day 5: RIH w/ bit on 2-7/8" work string. Drill out CICR, cement, and CBP. RU Foam N2 Unit as required. Circulate clean well bore to fill @ +/- 6585'. Drill out fill and continue in well to new PBTD of 6760'.

Day 6: Continue to clean out well to PBTD of +/- 6760'.

Day 7: Continue to clean out well to PBTD of +/- 6760'.

Day 8: Continue to clean out well to PBTD of +/- 6760'. Circulate wellbore clean and POOH and LD 2-7/8" work string.

Day 9: MIRU WL and RIH w/ GR/CNL/CCL, log well from PBTD to 6,000', POOH

PU and RIH w/ 3-3/8" TAGs loaded with SDP charges and perforate the Drinkard @ 4 SPF, 90 deg phasing (estimated 70', 280 shots), POOH

PU and RIH w/ treating packer on 2-3/8" work string

Day 10: Cont. RIH w/ treating packer on 2-3/8" work string. Set packer @ +/-6450'

MIRU acid crew. Acidize the Drinkard w/10,000 gals 15% HCl and rock salt in 3 equal stages @ +/- 10 BPM. Release packer. Wash out salt. POOH

Day 11: PU and RIH with 7" injection packer with 2-3/8" IPC tubing subs, upper and lower profile nipples, and on/off tool on 2-3/8" work string. Set packer @ +/-5596'. Release on/off tool and pressure test casing to 500 psi. POOH and LD 2-3/8" work string

Day 12: PU & RIH w/2-3/8" IPC injection tubing and on/off tool. Circulate packer fluid and latch onto packer with on/off tool. ND BOPs and NU WH. Pressure test casing to 500 psi. RDMO.

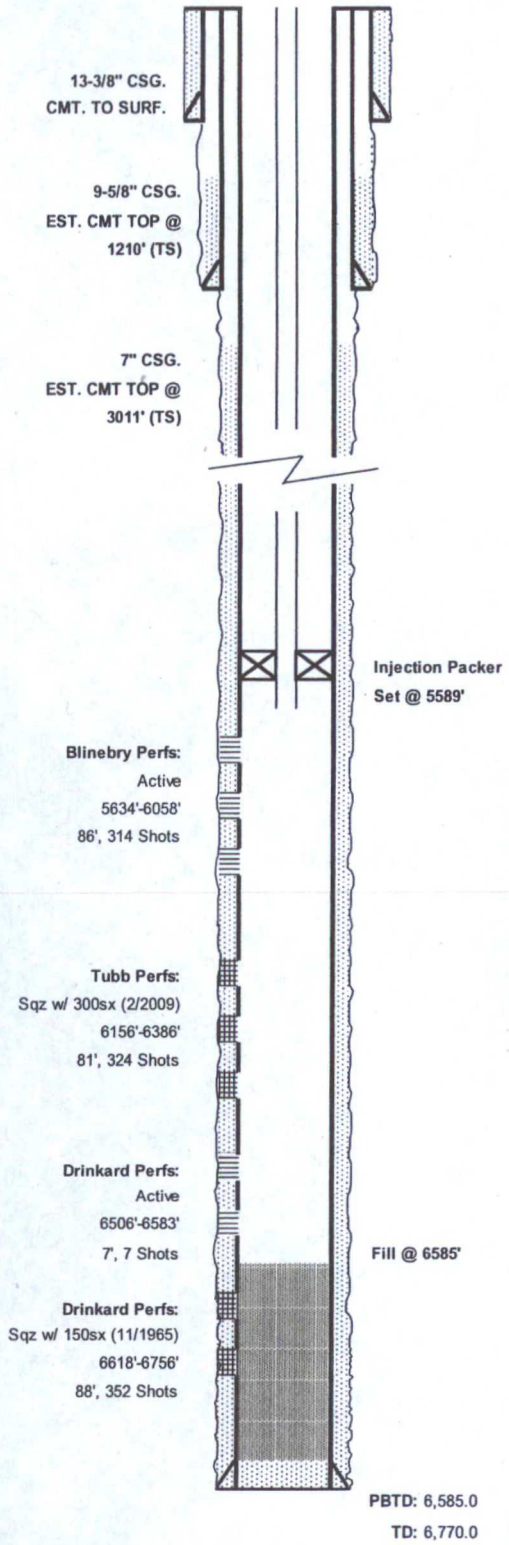
Day 13: Perform MIT test for NM OCD. Place well on injection

Current Wellbore Diagram

Apache Corporation

WBDU #39W (Hawk B-1 #9)

WELL DIAGRAM (CURRENT CONFIGURATION)



WELL NAME:	WBDU #39W (Hawk B-1 #9)	**API:**	30-025-06441
LOCATION:	660' FSL / 660' FWL, Sec 9, T-21S, R-37E	**COUNTY:**	Lea Co., NM
SPUD/TD DATE:	2/14/1949 - 3/28/1949	**COMP. DATE:**	4/4/1949
PREPARED BY:	Bret Shapot	**DATE:**	11/24/2015
TD (ft): 6,770.0	**KB Elev. (ft):** 3517.0	**KB to Ground (ft)**	10.0
PBTD (ft): 6,585.0	**Ground Elev. (ft):** 3507.0		

CASING/TUBING	SIZE (IN)	WEIGHT (LB/FT)	GRADE	DEPTHS (FT)	
Surface Casing	13-3/8" (Cmt. w/ 250sx., Circ.)	36 / 48	H-40	0.00	200.00
Int. Casing	9-5/8" (Cmt. w/ 500sx) TOC @ 1210' (TS)	36 / 40	J-55 N-80	0.00	2,824.00
Prod. Casing	7" (Cmt. w/ 750 sx) TOC @ 3011' (TS)	23 / 26	J-55 N-80	0.00	6,769.00

INJECTION TBG STRING

ITEM	DESCRIPTION	LENGTH (FT)	Btm (FT)
1	172 JTS 2-3/8" IPC Tubing		
2	Baker Lok-set packer w/on-off tool		
3			
4			
5			
6			
7			
8			
9			
10			

PERFORATIONS

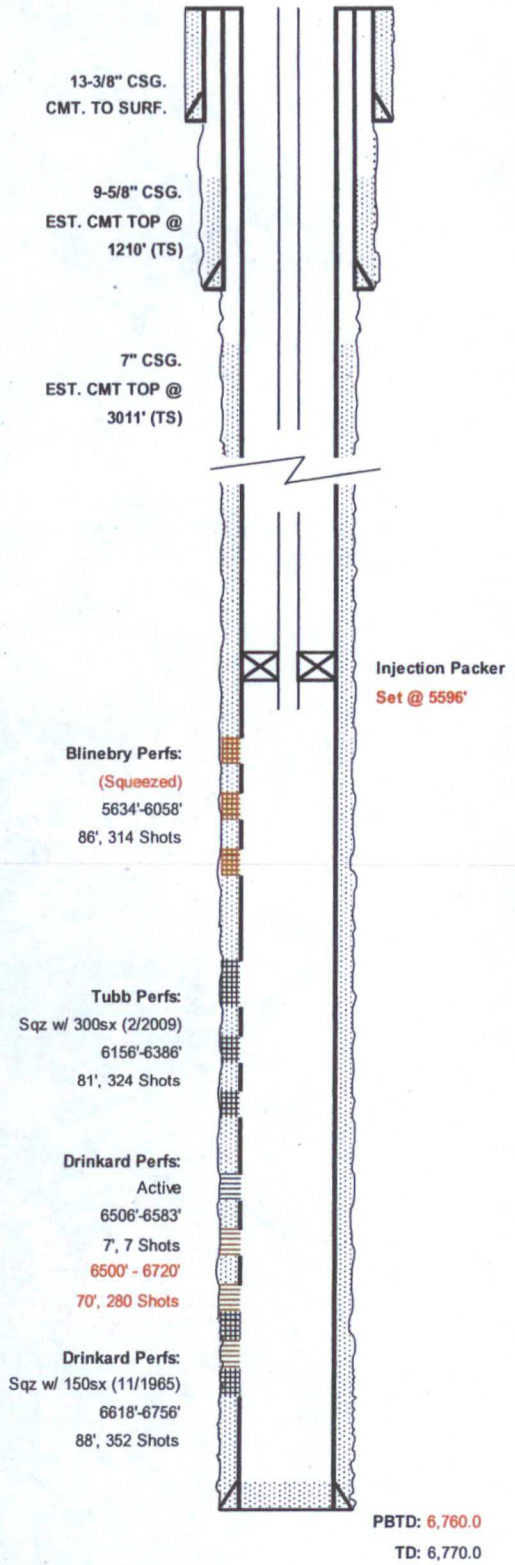
Form.	Intervals	FT	SPF
Blinebry	5800', 36', 52', 60', 87', 98', 5932', 47', 96', 6058'	10	1
	5636'-44', 52'-70', 80'-5714', 5719'-28', 52'-56', 65'-72'	76	4
Tubb	6156'-62', 88-94', 6284'-90', 94'-6314', 6318'-21', 24'-28', 39'-54', 58', 64', 80'-86'	81	4
Drinkard	(Squeezed) 6694'-6724', 6732'-46', 52'-56'	51	4
	(Squeezed) 6618'-38', 47'-50', 62'-68', 82'-86'	37	4
	6506', 20', 37', 44', 55', 63', 83'	7	1

Proposed Wellbore Diagram

Apache Corporation

WBDU #39W (Hawk B-1 #9)

WELL DIAGRAM (PROPOSED CONFIGURATION)



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TD (ft): 6,770.0	**KB Elev. (ft):** 3517.0	**KB to Ground (ft)**	10.0
PBTD (ft): 6,760.0	**Ground Elev. (ft):** 3507.0		

CASING/TUBING	SIZE (IN)	WEIGHT (LB/FT)	GRADE	DEPTHS (FT)	
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Prod. Casing	7" (Cmt. w/ 750 sx) TOC @ 3011' (TS)	23 / 26	J-55 N-80	0.00	6,769.00

INJECTION TBG STRING

ITEM	DESCRIPTION	LENGTH (FT)	Btm (FT)
1	2-3/8" 4.7 LB/FT J-55 IPC TBG	5,580.00	5580.00
2	2-3/8" ON/OFF TOOL W/ 1.78 F PROFILE	1.80	5581.80
3	2-3/8" X 7" NICKLE PLATED ARROW-SET PKR	6.20	5588.00
4	2-3/8" 4.7 LB/FT J-55 IPC TBG	8.00	5596.00
5	2-3/8" PROFILE NIPPLE 1.50 R	0.90	5596.90
6	2-3/8" 4.7 LB/FT J-55 IPC TBG	6.00	5,602.90
7			
8			
9			
10			

PERFORATIONS

Form.	Intervals	FT	SPF
Blinebry	(Squeezed) 5800', 36', 52', 60', 87', 98', 5932', 47', 96', 6058'	10	1
	(Squeezed) 5636'-44', 52'-70', 80'-5714', 5719'-28', 52'-56', 65'-72'	76	4
Tubb	(Squeezed) 6156'-62', 88-94', 6284'-90', 94'-6314', 6318'-21', 24'-28', 39'-54', 58', 64', 80'-86'	81	4
	(Estimated) 6500' - 6720'	70	4
Drinkard	(Squeezed) 6694'-6724', 6732'-46', 52'-56'	51	4
	(Squeezed) 6618'-38', 47'-50', 62'-68', 82'-86'	37	4
	6506', 20', 37', 44', 55', 63', 83'	7	1

Conditions of Approval

Apache Corporation
West Blinebry Drinkard Unit - 39, API 3002506441
T21S-R37E, Sec 09, 660FSL & 660FWL
April 22, 2016

1. **Operator is required to have the BLM approved NOI procedure with applicable conditions of approval on location for this workover operation.**
2. Due to being within the Lesser Prairie Chicken habitat, this workover activity will be restricted to the hours of 9:00am through 3:00am for the period of March 1 through June 15. Exceptions to these restrictions may be granted by BLM's Johnny Chopp <jchopp@blm.gov> 575.234.2227.
3. Subject to like approval by the New Mexico Oil Conservation Division.
4. **Provide BLM with an electronic copy cement bond log record of the 7" csg from 6100 or below to top of cement taken with 0psig casing pressure. The CBL may be attached to a pswartz@blm.gov email. The CFO BLM on call engineer may be reached at 575-706-2779.**
5. Surface disturbance beyond the existing pad shall have prior approval.
6. A closed loop system is required. The operator shall properly dispose of drilling/circulating contents at an authorized disposal site. Tanks are required for all operations, no excavated pits.
7. Functional H_2S monitoring equipment shall be on location.
8. 2000 (2M) Blow Out Prevention Equipment to be used. All BOPE and workover procedures shall establish fail safe well control. Blind ram(s) and pipe ram(s) designed to close on all workstring diameters used is required equipment. A manual BOP closure system (hand wheels) shall be available for use regardless of BOP design. Function test the installed BOPE to 500psig when well conditions allow. Related equipment, (choke manifolds, kill trucks, gas vent or flare lines, etc.) shall be employed when needed for reasonable well control requirements.
9. All waste (i.e. trash, salts, chemicals, sewage, gray water, etc.) created as a result of work over operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area. Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.
10. The subsequent report is to include workover stimulation injection pressures. Report maximum/minimum injection rate (BPM) and max/min stimulation injection pressures (psig).
11. Workover approval is good for 180 days (completion to be within 180 days of approval). A legitimate request is necessary for extension of that date.

12. Submit a (BLM Form 3160-**5** subsequent report (daily reports) via BLM's Well Information System; https://www.blm.gov/wispermits/wis/SP describing all wellbore activity and the Mechanical Integrity Test. Include (dated daily) descriptions of the well work, and the setting depths of installed equipment: internally corrosive protected tubing, tubing on/off equipment just above the packer. File intermediate Form 3160-**5** within 30 days of any interrupted workover procedures and a complete workover subsequent sundry.
13. Submit the BLM Form 3160-**4 Recompletion Report** within 30 days of the date all BLM approved procedures are complete. **Include formation tops on the Recompletion Report.**

Well with a Packer - Operations

1) Conduct a Mechanical Integrity Test of the tubing/casing annulus after a tubing, packer or casing seal is established. Repair that seal any time more than five barrels of packer fluid is replaced within 30 days.
2) The minimum test pressure should be 500 psig for 30 minutes or 300 psig for 60 minutes, with minimum 200 psig differential between tubing and casing pressure (at test time) but no more than 70% of casing burst pressure as described by Onshore Order 2.III.B.1.h. (The tubing or reservoir pressure may need to be reduced). Verify all annular casing vent valves are open to the surface during this pressure test. An alternate method for a BLM approved MIT is to have the fluid filled system open to atmospheric pressure and have a loss of less than five barrels in 30 days witnessed by a BLM authorized officer.
3) Document the pressure test on a one hour full rotation calibrated (within 6 months) recorder chart registering within 35 to 75 per cent of its full range. Greater than 10% pressure leakoff will be viewed as a failed MIT. Less than 10% pressure leakoff will be evaluated site specifically and may restrict injection approval.
4) Make arrangements 24 hours before the test for BLM to witness. In Lea County phone 575-393-3612. If no answer, leave a voice mail or email with the API#, workover purpose, and a call back phone number. Note the contact, time, & date in your subsequent report.
5) Submit a subsequent Sundry Form 3160-5 relating the MIT activity. Include the original or a copy of the recorded MIT pressure chart, description of the well work, and the setting depths of installed equipment: internally corrosive protected tubing, tubing on/off equipment just above the packer. The setting depths and descriptions of each are to be included in the subsequent sundry. List (by date) descriptions of daily activity of any previously unreported wellbore workover.

Compliance with a NMOCD Administrative Order is required.

a) Approved injection pressure compliance is required.
b) If injection pressure exceeds the approved pressure you are required to reduce that pressure and notify the BLM within 24 hours.

c) When injection pressure is within 50 psig of the maximum pressure, install automation equipment that will prevent exceeding that maximum. Submit a subsequent report (Sundry Form 3160-5) describing the installed automation equipment within 30 days.

6) A request for increased wellhead pressures is to be accompanied by a "Step Rate Test:" that is to clearly indicate any requested wellhead pressure is +50psig below frac pressure for the wellbore's disposal formation. PRIOR to a Step Rate Test BLM – CFO is requiring a Notice of Intent.
7) Unexplained significant variations of rate or pressure to be reported within 5 days of notice.
8) The casing/tubing annulus is required to be monitored for communication with injection fluid or loss of casing integrity. A BLM inspector may request verification of a full annular fluid level at any time.
9) A "Best Management Practice" is to maintain the annulus full of packer fluid at atmospheric pressure. Equipment that will display on site, continuous open to the air fluid level is necessary to achieve this goal.
10) Loss of packer fluid above five barrels per month indicates a developing problem. Notify BLM Carlsbad Field Office, Petroleum Engineering within 5 days.
11) A suggested format for monthly records documenting that the casing annulus is fluid filled is available from the BLM Carlsbad Field Office. Gain of annular fluid requires notification within 24 hours. Cease injection and maintain a production casing pressure of 0 psia. Notify the BLM's authorized officer ("Paul R. Swartz" <pswartz@blm.gov>, cell phone 575-200-7902). If there is no response phone 575-361-2822.
12) Gain of annular fluid requires notification within 24 hours. Cease injection and maintain a production casing pressure of 0 psia. Notify the BLM's authorized officer ("Paul R. Swartz" <pswartz@blm.gov>, cell phone 575-200-7902). If there is no response phone 575-361-2822.
13) Submit a (BLM Form 3160-**5** subsequent report (daily reports) via BLM's Well Information System; https://www.blm.gov/wispermits/wis/SP (email pswartz@blm.gov for instructions) describing all wellbore activity and the Mechanical Integrity Test. Include (dated daily) descriptions of the well work, and the setting depths of installed equipment: internally corrosive protected tubing, tubing on/off equipment just above the packer. File intermediate Form 3160-**5** within 30 days of any interrupted workover procedures and a complete workover subsequent sundry.