Form 3160-5 (August 2007)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

Carlsbad	Field	Gffice VED
OCD	Hobi	OMB NO. 1004-0135 Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS NMNM90161 Do not use this form for proposals to drill or to re-enter an 6. If Indian, Allottee or Tribe Name abandoned well. Use form 3160-3 (APD) for such proposals. 7. If Unit or CA/Agreement, Name and/or No. SUBMIT IN TRIPLICATE - Other instructions on reverse side. NM12004 1. Type of Well Well Name and No. HAWK B-1 13 ☐ Oil Well ☐ Gas Well ☐ Other: **UNKNOWN OTH** 2. Name of Operator Contact: ISABEL HUDSON API Well No. APACHE CORPORATION 30-025-20178-00-64 E-Mail: Isabel.Hudson@apachecorp.com 3a. Address 3b. Phone No. (include area code) 10. Field and Pool, or Exploratory 303 VETERANS AIRPARK LANE SUITE 3000 Ph: 432.818.1142 Multiple--See Attached MIDLAND, TX 79705 4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 11. County or Parish, and State HOBBS OCD Sec 9 T21S R37E NESE 1980FSL 660FEL LEA COUNTY, NM 32.491569 N Lat, 103.161587 W Lon

		MAR 2 1	2016	* *	
12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA					
TYPE OF SUBMISSION	TYPE OF ACTION				
☑ Notice of Intent	☐ Acidize ☐ Alter Casing	☐ Deepen ☐ Fracture Treat	☐ Production (Start/Resume)☐ Reclamation	☐ Water Shut-Off ☐ Well Integrity	
□ Subsequent Report	Casing Repair	□ New Construction	Recomplete	☑ Other Workover Operations	
☐ Final Abandonment Notice	☐ Change Plans ☐ Convert to Injection	☐ Plug and Abandon☐ Plug Back	☐ Temporarily Abandon ☐ 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.)

Apache would like to perform workover as per attached.

SEE ATTACHED FOR CONDITIONS OF APPROVAL

14. I hereby certify that the	e foregoing is true and correct. Electronic Submission #326623 verifie For APACHE CORPORA Committed to AFMSS for processing by PRI	TION, s	ent to the Hobbs	
Name (Printed/Typed)	ISABEL HUDSON	Title	REGULATORY ANALYST	1, 20
Signature	(Electronic Submission)	Date	12/17/2015	4
	THIS SPACE FOR FEDERA	AL OR	STATE OFFICE USE	
Approved By P	Rowarh	Title	Tech PET	Date 3/15/14
certify that the applicant hole	y, are attached. Approval of this notice does not warrant or ds legal or equitable title to those rights in the subject lease icant to conduct operations thereon.	Office	CFO	Ka
Title 18 U.S.C. Section 1001 States any false, fictitious	and Title 43 U.S.C. Section 1212, make it a crime for any por fraudulent statements or representations as to any matter w	erson kno	wingly and willfully to make to an urisdiction.	y department of agency of the United

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



WBDU 42W Proposed Procedure (API: 30-025-20178)

Deepen Well, Run 4" Liner, Re-Perforate and Stimulate

February 4, 2016

- Day 1: MIRU. Install BOP. Release 5-1/2" packer and POOH w/ 2-3/8" IPC injection tubing and packer.
- Day 2: PU & RIH w/ 4-3/4" bit on 2-7/8" work string. Clean out well bore to PBTD @ +/- 6770'.
- Day 3: Cont. to clean out well to PBTD @ +/- 6770'. Circulate wellbore clean and POOH and LD 2-7/8" work string.
- Day 4: RU casing crew and equipment and RIH with 4" 9.5 lb/ft, J-55, TMK Ultra FJ casing (or similar specifications) with float collar and float shoe to +/- 6770'

RU cement crew, perform single stage cement job to surface consisting of 20 bbl fresh water flush, 40 bbl seal bond LCM spacer, and 378 sacks of Class C cement + additives (weight 13.5 ppg, yield 1.66 cf/sack, volume 112 bbls, 100% excess slurry). Displace with 82 bbls fresh water (confirm all volumes)

- Day 5: WOC
- **Day 6:** RIH w/ 3-1/4" bit on 2-3/8" work string. Drill out float collar and cement to new PBTD at +/- 6765'. Circulate clean. POOH
- Day 7: MIRU WL and RIH w/ GR/CBL/CCL/CNL, log well from TD to surface, POOH

 PU and RIH w/ 3-1/8" 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 8: 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 @ +/- 8 BPM.

 Release packer. Wash out salt. POOH
- **Day 9:** PU and RIH with 4" 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 @ +/-6450'. Release on/off tool and pressure test casing to 500 psi. POOH and LD 2-3/8" work string
- **Day 10:** 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 11: Perform MIT test for NM OCD. Place well on injection

Apache Corporation

WBDU #42W (Formerly Hawk B-1 #13)



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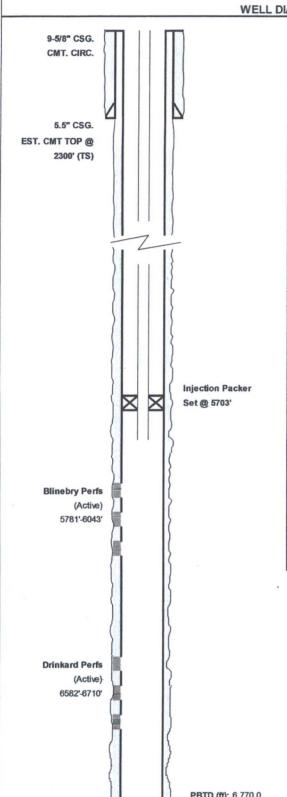
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	•	NT CONFIGURA	,			
WELL	NAME:	WBDU #42W (Formerly Hawk B-1 #13)		API:	30-025-20178	
LOCATIO	ON:	1980' FSL / 660' FEL, Sec 9, T-21S, R-37E		COUNTY:	Lea Co., NM	
SPUD/TI	D DATE:	4/13/1963 - 5/3/19	063	PREPARED BY:	Bret Shapot	
COMP.	DATE:	6/1/1963		UPDATED:	11/23/1985	
TD (ft):	6,780.0	KB Elev. (ft):	3480.0	KB ELEV:	10.0	
PBTD (fi	t):6,770.0	Ground Elev. (ft)	3470.0			
CASING	TUBING	SIZE (IN)	WEIGHT (LB/FT)	GRADE	DEPTH	S (FT)
Surface (Casing	9-5/8" (Cmt. w/450x, circ)	36.00	H-40 / J-55	0.00	1,294.00
Prod. Cas	sing	5-1/2" (Crnt. w/700x) TOC @ 2300" (TS)	17.00	J-55/L-80	0.00	6,780.00
		IN	JECTION TBG S	TRING		
ITEM		DE	ESCRIPTION		LENGTH (FT)	Depth (FT)
1	175 JTS 2	2-3/8" IPC Tubing			()	(-)
2	Baker Lok	k-set packer w/on-off	tool			
3						
4						
5						
6						
7						
8						
9		,				
10						
	N. P. Cont.		PERFORATION	NS		
Form.	Intervals	5			FT	SPF

5822'-24', 32'-34', 37'-38', 46'-48', 51'-53', 58'-59', 72'-74', 80'-84', 5905'-07', 43'-45', 48'-49', 57'-59', 99'-6001', 6012'-13', 24'-26', 41'-43'

Drinkard 6582'-84', 90'-92', 96'-98', 6603'-05', 12'-14', 20'-21', 27'-29', 46'-

5781', 87', 99', 5807', 11'

6690'-93', 6701'-03', 08'-10'

48', 50'-52', 62'-64', 71'-73'

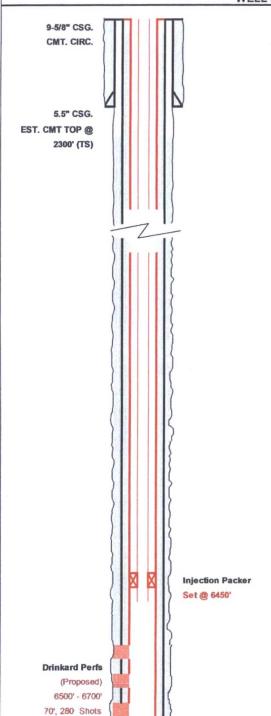
PBTD (ft): 6,770.0 TD (ft): 6,780.0

Apache Corporation

WBDU #42W (Formerly Hawk B-1 #13)







PBTD (ft): 6,765.0 TD (ft): 6,780.0

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WELL N		WBDU #42W (Formerly Hawk B-1 #13)		API: 30-025-20178		78
LOCATIO	N:	1980' FSL / 660' FEL, Sec 9, T-21S, R-37E		COUNTY: Lea Co., NM		
SPUD/TD	DATE:	4/13/1963 - 5/3/196	63	PREPARED BY:	Bret Shapot	
COMP. D.	ATE:	6/1/1963		UPDATED:	11/23/1985	
TD (ft):	6,780.0	KB Elev. (ft):	3480.0	KB ELEV:	10.0	
PBTD (ft)	:6,765.0	Ground Elev. (ft):	3470.0			
CASING/	TUBING	SIZE (IN)	WEIGHT (LB/FT)	GRADE	DEPTHS	(FT)
Surface C	asing	9-5/8" (Cmt. w/450x, circ)	36.00	H-40 / J-55	0	1,294
Prod. Cas	ing	5-1/2" (Cmt. w/700x) TOC @ 2300' (TS)	17.00	J-55/L-80	0	6,780
Int. Casing)	4" Crnt. To surf	9.50	J-55	0	6,770
		INJ	JECTION TBG S	TRING		
ITEM		DE	SCRIPTION		LENGTH (FT)	Depth (FT)
1	2-3/8" 4.7	LB/FT J-55 IPC TBG			6460.0	6460.0
2	2-3/8" ON	VOFF TOOL W/ 1.78	F PROFILE		1.8	6461.8
3	2-3/8" X 4	-1/2" NICKLE PLATEI	D ARROW-SET PKR		6.2	6468.0
4	2-3/8" 4.7	LB/FT J-55 IPC TBG			8.0	6476.0
5	2-3/8" PR	OFILE NIPPLE 1.50 F	3		0.9	6476.9
6	2-3/8" 4.7	LB/FT J-55 IPC TBG			6.0	6482.9
7						
8						
9						
10						
September 1			PERFORATION	NS		2.789
Form.	Intervals	S			FT	SPF
Drinkard	(Propose	ed) 6500' - 6700'			70	4

Conditions of Approval

Apache Corporation West Blinebry Drinkard Unit - 42, API 3002520178 T21S-R37E, Sec 09, 1980FSL & 660FEL March 15, 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. Surface disturbance beyond the existing pad shall have prior approval.
- 5. 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.
- 6. Functional H₂S monitoring equipment shall be on location.
- 7. 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.
- 8. 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.
- 9. Prior to running the 4" liner preform operations that will verify (5 1/2"x 9 5/8") annular cement coverage from 50ft or more below the 9 5/8" shoe to 50ft or more above that shoe.
- 10. Provide BLM with an electronic copy cement bond log record of the 4" csg from 6500 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.
- 11. Before perforating, **perform a charted casing integrity test** of 855psig minimum. 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. **Verify all annular casing vents**

- are plumbed to the surface and open during this pressure test. <u>Call BLM 575-393-3612</u> and arrange for a BLM witness of that pressure test. Include a copy of the chart in the subsequent sundry for this workover.
- 12. Workover approval is good for 90 days (completion to be within 90 days of approval). A legitimate request is necessary for extension of that date.
- 13. File intermediate **subsequent sundry** Form 3160-5 within 30 days of any interrupted workover procedures and a complete workover subsequent sundry. Include (dated daily) descriptions of the well work.
- 14. 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 a copy of the recorded MIT pressure chart. List the name of the BLM witness, or the notified person and date of notification. NMOCD is to retain the original recorded MIT chart.
- 6) Use of tubing internal protection, tubing on/off equipment just above the packer, a profile nipple, and an in line tubing check valve below the packer or between the on/off tool and packer is a "Best Management Practice". 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.

- 7) 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.
- 8) Class II (production water disposal) wells will not be permitted Stimulation Pressures or "Injectivity Tests" that exceed the NMOCD/BLM generic frac pressure which is: .2 x ft depth to the topmost injection or 50psig below the frac point as clearly indicated by a BLM accepted "Step Rate Test".
- 9) 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.
- 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) Unexplained significant variations of rate or pressure to be reported within 5 days of notice.
- 12) 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.
- 13) 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.
- 14) Loss of packer fluid above five barrels per month indicates a developing problem. Notify BLM Carlsbad Field Office, Petroleum Engineering within 5 days.
- 15) 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.
- 16) 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" <<u>pswartz@blm.gov</u>>, cell phone 575-200-7902). If there is no response phone 575-361-2822.
- 17) 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.