<b>)</b>						
			)	ATS-14	-1029	
Farm3160-3 (March 2012)		<b>NO-</b> 20	115	FORM	APPROVED 16. 1004-0137	
UNITED STAT	TES	MAY 12 (	)(J	Expires O	ictober 31, 2014	
DEPARTMENT OF TH BUREAU OF LAND M	E INTERIOR	r -nn	:n	NMLC-031741A		. 1
APPLICATION FOR PERMIT T	o drill o	R REENTER		6. If Indian, Allotee	or Tribe Name	$\overline{\langle \rangle}$
la. Type of work: DRILL REE	NTER			7 If Unit or CA Agree	ement, Name and	No.
lb. Type of Well: 🔽 Oil Well 🗌 Gas Well 🗌 Other	√ s	ingle Zone 🔲 Multi	iple Zone	8. Lease Name and W HAWK A #38 <2442	Vell No. 26> 🖌	
2 Name of Operator APACHE CORPORATION	73/			9. API Well No. 30-025- 425	31	
3a. Address 303 VETERANS AIRPARK LN #1000	3b. Phone N	1 (include area code)		10. Field and Pool, or E	xploratory 2	2700
MIDLAND, 1X 19705	h (m) State reminer			Wantz, H	K and Survey or l	-200>
At surface 970' FNL & 2310' FWL (C)	n any sidie required	nerus. ·)			K. and Survey of A	inca .
At proposed prod. zone SAME				UL: C SEC: 8 T2	1S R37E	
14. Distance in miles and direction from nearest town or post office* APPROX 3.5 MILES NORTH OF EUINCE, NM		······································		12. County or Parish LEA	13. Sta NM	te
15. Distance from proposed <sup>‡</sup> location to nearest 970'	16. No. of a	acres in lease	17. Spacin	g Unit dedicated to this w	ell	
property or lease line, ft. (Also to nearest drig, unit line, if any)	320 AC	RES	40 /	0 ACRES		
<ol> <li>Distance from proposed location* ~ 250' to nearest well, drilling, completed, applied for, on this lease, ft.</li> </ol>	19. Propose 760	d Depth O'	20. BLM/I BLM-CC	20. BLM/BIA Bond No. on file BLM-CO-1463 NATIONWIDE / NMB000736		3
<ol> <li>Elevations (Show whether DF, KDB, RT, GL, etc.) GL: 3536'</li> </ol>	22. Approxi ASS	mate date work will sta con ASA	nt*	23. Estimated duration ~ 10 DAYS		
	24. Attac	chments				
The following, completed in accordance with the requirements of On	shore Oil and Gas	Order No.1, must be a	ttached to the	is form:		
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> </ol>		4. Bond to cover t Item 20 above).	he operation	ns unless covered by an e	xisting bond on f	file (see
3. A Surface Use Plan (if the location is on National Forest Systems SUPO must be filed with the appropriate Forest Service Office).	ern Lands, the	<ol> <li>Operator certifie</li> <li>Such other site BLM.</li> </ol>	cation specific info	ormation and/or plans as r	may be required t	by the
25. Signature Sprin Llos	Name SORI	(Printed/Typed) NA L. FLORES		I	Date 3-13	14
Title SUBV OF DBILLING SERVICES						
Approved by (Sign Steve Caffey	Name	(Printed/Typed)			DWAY - 6	2015
Title FIELD MANAGER	Office	c	ARLSBA	D FIELD OFFICE		
Application approval does not warrant or certify that the applicant h conduct operations thereon. Conditions of approval, if any, are attached.	olds legal or equi	table title to those righ	ts in the sub APF	ject lease which would en PROVAL FOR	title the applicant TWO YEA	to RS
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it : States any false, fictitious or fraudulent statements or representations	a crime for any p as to any matter w	erson knowingly and v within its jurisdiction.	willfully to m	nake to any department or	agency of the U	nited
(Continued on page 2)				*(Instru	uctions on pa	.ge 2)
		K21	1.6		<b>^</b>	
Capitan Controlled Water Basin		14/11	2117		3w	
			SE	EE ATTACH	IED FOR	) N

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Approval Subject to General Requirements & Special Stipulations Attached

MAY 1 2 2015

CONDITIONS OF APPROVAL

# DRILLING PLAN: BLM COMPLIANCE

**HOBBS OCD** 

MAY 1 2 2015

RECEIVED

(Supplement to BLM 3160-3)

# APACHE CORPORATION (OGRID: 873) HAWK A #38

Lease #: NMLC-031741A Projected TD: 7600' GL: 3536' 970' FNL & 2310' FWL UL: C Sec: 8 T21S R37E LEA COUNTY, NM

#### 1. GEOLOGIC NAME OF SURFACE FORMATION: Quaternary Aeolian Deposits

#### 2. ESTIMATED TOPS OF GEOLOGICAL MARKERS & DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:

			-	
Quaternary Aeolian	Surface		San Andres	4132'
Rustler	1340'		Glorieta	5238'
Salt Top	1415'		Blinebry	5786'
Salt Bottom	2566'		Tubb	· 6276'
Yates	2706'		Drinkard	6632 <b>'</b>
Queen	3499'	•	ABO	6866'
Grayburg	3784'		TD .	7600'

Depth to Ground Water: ~ 65'

All fresh water & prospectively valuable minerals, as described by BLM, encountered during drilling, will be recorded by depth & adequately protected. All oil & gas shows within zones of correlative rights will be tested to determine commercial potential.

# Ser COA

CASING PROGRAM: All casing is new & API approved

Q	HOLE SIZE	DEPTH,	OD CSG	WEIGHT	COLLAR	GRADE	COLLAPSE	BURST	TENSION
R	11″	0'-1365'	`8-5/8″	24#	STC	J-55	1.0	1.21	1.8
	7-7/8"	0'-7600'	5-1/2″	17#	LTC	L-80	1.0	1.21	1.8

#### 3. CEMENT PROGRAM:

#### A. <u>8-5/8" Surface (100% excess cmt to surf):</u>

Lead: 330 sx Cl C w/ 2% CACL2 + 0.13# CF + 3# LCM1 \_ 0.005 gps FP-6L + 4% Bentonite (13.5 wt, 1.75 yld, 8.962gal/sx) Comp Strengths : **12 hr** - 500 psi **24 hr** - 782 psi

<u>Tail:</u> 200 sx Cl C w/1% CACL@ + 0.13# CF + 0.005 gps FP-6L (14.8 wt, 1.34 yld, 6.302 gal/sx) Comp Strengths: **12 hr** - 755psi **24hr** - 1347psi

#### B. 5-1/2" Production (Cmt to surf / 30 % excess cmt):

Lead: 620 sx (35:65) Poz CI C w/ 5% CaCL2 + 0.125 # CF + 3# LCM1 + 0.5% FL52 + 0.005 gps FP6L + 6% Bentonite, 0.3% Sodium Metacilicate (12.6 wt, 2.07 yld,10.995 gal/sx) Comp Strengths: 12 hr – 580 psi 24 hr – 1072 psi

Tail: 380 sx (50:50) Poz Cl C w/ 5% CaCL2 + 0.13% CF + 3# LCM1 + 0.005gps FP6L + 2% Bentonite + 1% FL25 + 1% BA58 + 0.1% Sodium Metasilicate

(14.2 wt, 1.37 yld, 5.971 gal/sx) Comp Strengths: 12 hr – 1130 psi 24 hr – 1633 psi

\*\* The above cmt volumes could be revised pending caliper measurement from open hole logs. For Surface csg: If cmt does not circ to surface, the appropriate BLM office shall be notified, TOC shall be determined by running a temperature log, operator will propose a remediation method & request BLM approval.

# 4. PROPOSED CONTROL EQUIPMENT



*"EXHIBIT 3"* shows an 11" 3M psi WP BOP consisting of an annular bag type preventer, middle pipe rams, bottom blind rams. The BOP will be nippled up on the 8-5/8" surface csg head & tested to 2000psi using test plug & utilized continuously until TD is reached. The BOP will be tested at 2000psi, maximum surface pressure is not expected to exceed 2M psi, BHP is calculated to be approximately 3344 psi. \*All BOP's and associated equipment will be tested as per BLM *Drilling Operations Order #2*. The BOP will be operated and checked each 24 hr period & the blind rams will be operated & checked when the drill pipe is out of the hole. Function tests will be documented on the daily driller's log. *"EXHIBIT 5"* also shows a 3M psi choke manifold with a 3" panic line. Full opening stabbing valve & Kelly cock will be on derrick floor in case of need. No abnormal pressures of temperatures are expected in this well. No nearby wells have encountered any problems.

# 5. PROPOSED MUD CIRCULATION SYSTEM: (Closed Loop System)

<u> </u>	INTERVAL IUIN	MW (ppg)	VISC (sec/qt)	FLUID LOSS (cc)	MUD TYPE
Seg	0' - 1365' 1 10	8.3 - 8.8	28 - 32	NC	Fresh Water
COA	1365 - 7600'	9.8 - 10.2	28 – 32	NC	Brine

\*\* Visual mud monitoring equipment shall be in place to detect volume changes. A mud test shall be performed every 24 hrs after mudding up to determine, as applicable: density, visc, gel strength, filtration, and pH. The necessary mud products for weight addition & fluid loss control will be on location at all times. In order to run open hole logs & casing, the above mud properties may have to be altered to meet these needs.

## 6. AUXILIARY WELL CONTROL EQUIPMENT / MONITORING EQUIPMENT:

11" x 3000 psi Double BOP/Blind & pipe ram (3M BOP/BOPE to be used as 2M system)

4-1/2" x 3000 psi Kelly valve

11" x 3000 psi mud cross – H2S detector on production hole

- Gate-type safety valve 3" choke line from BOP to manifold
- 2" adjustable chokes 3" blow down line

Fill up line as per Onshore Order 2

## 7. LOGGING, CORING & TESTING PROGRAM:

- A. OH logs: Dual Laterolog, MSFL, CNL, Litho-Density, Gamma Ray, Caliper from TD back to 8-5/8" csg shoe.
- B. Run CNL, Gamma Ray from 8-5/8" csg shoe back to surface.
- C. No cores, DST's or mud logger are planned at this time.
- **D.** Additional testing will be initiated subsequent to setting the 5-1/2" production casing. Specific intervals will be targeted based on log evaluation, geological sample shows & drill stem tests.

#### 8. POTENTIAL HAZARDS:



No abnormal pressures or temperatures are anticipated. In the event abnormal pressures are encountered, however, the proposed mud program will be modified to increase the mud-weight. There is known presence of H<sub>2</sub>S in this area. If H<sub>2</sub>S is encountered the operator will comply with the provisions of *Onshore Oil & Gas Order No. 6*. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated <u>BHP: 3344 psi</u> and estimated <u>BHT</u>: 115°.

## 9. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

Road and location construction will begin after BLM has approved APD. Anticipated spud date will be as soon after BLM approval and as soon as rig will be available. Move in operations and drilling is expected to take approx <u>10 days</u>. If production casing is run then an additional <u>90 days</u> will be needed to complete well and construct surface facilities and/or lay flow lines in order to place well on production.

#### **10. OTHER FACETS OF OPERATION:**

After running csg, cased hole Gamma Ray, Neutron Collar logs will be run from TD back to all possible productive zones. The Wantz; ABO formation will be perforated and stimulated in order to establish production. The well will be tested & potentialed as an oil well.



\*\*\* If H2S is encountered in quantities greater than 100ppm, Apache will shut in well & install a remote operated choke \*\*\*









# **PRIVATE SURFACE OWNER AGREEMENT**

OPERATOR:	APACHE CORPORATION
WELL NAME:	HAWK A #38
UL: <u> </u>	ECTION: <u>8</u> TOWNSHIP: <u>215</u> RANGE: <u>37E</u>
LOCATION: <u>9</u>	70' FNL & 2310' FWL COUNTY: LEA STATE: MM
LEASE NUMBE	R:NMLC-0031741A

# **STATEMENT OF SURFACE USE**

The surface to the subject land is owned by <u>Millard Deck Estate, c/o Bank of America NA,</u> <u>Trustee of Millard Deck Testamentary Trust under Last Will & Testament of Millard Deck,</u> <u>ATTN: Jeff Petter, Asst VP, US Trust-Farm & Ranch, Bank of America Private Wealth Mgmt,</u> PO Box 270, Midland, TX 79702 (303 W. Wall St, Midland, TX 79701) 432-688-7926

The surface owner has been contacted regarding the drilling of the subject well, and an agreement for surface use has been negotiated.

**CERTIFICATION:** I hereby certify that the statements made in this statement are to the best of my knowledge, true and correct.

NAME:	MAXWELL GROVE
SIGNATURE:	Manuel Since
DATE:	02/12/2014

TITLE: DRILLING ENGINEER

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To expedite your Application to Drill please fax the completed form to the Bureau of Land Management (575) 234-5927 or (575) 885-9264 Attn: Legal Instruments Examiner 620 E. Green Street Carlsbad, NM 88220

The original document with signature should be mailed as soon as possible.