| | | | | OCD Hobbs | | | | | |
|---|---|--|----------------------------|---|----------------|---------------------------------------|---|-----------------|----------------------------------|
| - H . | | | | | | A- | TS-11 | 4-7 | 60 |
| | | | | HOBE | 3S OCD | | | -D | |
| Form 3160 -3 (March 2012) | | | | _ | a a 2011 | OMB | 4 APPROVI No. 1004-01 October 31, 2 | 37 | |
| | UNITED : DEPARTMENT OF | | RIOR | MAR | 3 0 201 | 5 Lease Serial No. | | | |
| | BUREAU OF LAN | D MANAGI | EMENT | | | NMLC-C | | | |
| | APPLICATION FOR PERM | IT TO DRI | LL OF | REENTER RE | CEIVED | 6. If Indian, Alloted | e or Tribel | Name | |
| la. Type of work: | ✓ DRILL | REENTER | | | | 7 If Unit or CA Agr APACHE CORP-N | | | 8137 |
| lb. Type of Well: | ☑ Oil Wetl | her | √ Sir | ıgle Zone 🔲 Multi | ple Zone | 8. Lease Name and WEST BLINEBRY | | RD UNI | 37 <i>3</i> 46) ⊺#221 |
| 2. Name of Operato | OF APACHE CORPORATION | | | | | 9. API Well No. 30-025- 424 | .96 | | |
| | ETERANS AIRPARK LN #1000 | | | (include area code) | | 10. Field and Pool, or | Explorator | y | |
| | AND, TX 79705 | | 2-818-11 | | | EUNICE; BLI-TU-DR, NORTH <22900> | | | |
| | (Report location clearly and in accordan | ice with any State | e requireme | ents.*) | | 11. Sec., T. R. M. or F | 3lk. and Sur | vey or Ar | ea |
| At surface At proposed proc | 2300' FSL & 500' FEL (1) | | | | | SEC: 17 T21S | R37E | | |
| | and direction from nearest town or post | office* | | | | 12. County or Parish LEA | | 13. State NM | |
| 15. Distance from pro location to nearest | posed* 500' | 16. | No. of ac | eres in lease | 17. Spacin | g Unit dedicated to this | well | | |
| property or lease l | line, ft. rig. unit line, if any) | 12 | 120 ACRES 40 A | | | CRES | | | |
| 18. Distance from pro | posed location* | 19. | 19. Proposed Depth 20. BLM | | | BIA Bond No. on file | | | |
| to nearest well, dri applied for, on this | s lease, ft. ~200' | - | 200' | | BLM-CC | D-1463 NATIONWIDE / NMB000736 | | | |
| 21. Elevations (Show GL: 3464' | whether DF, KDB, RT, GL, etc.) | 22. A | Approxim S Sco | nate date work will star | nt* | 23. Estimated duratio ~ 10 DAYS | n | | |
| | | 24 | . Attac | | | | | | |
| The following, complet | ted in accordance with the requirements | of Onshore Oil | and Gas (| Order No.1, must be at | ttached to thi | is form: | | | |
| Well plat certified b A Drilling Plan. | by a registered surveyor. | | | 4. Bond to cover the Item 20 above). | he operation | ns unless covered by an | existing be | ond on file | e (see |
| | n (if the location is on National Fores d with the appropriate Forest Service Of | | , the | Operator certific Such other site BLM. | | ormation and/or plans as | s may be re | quired by | the |
| 25. Signature | ning & Hory | / | | Printed/Typed) JA L. FLORES | | | Date 511 | 31/ | 4 |
| Title SUPV OF DRI | ILLING SERVICES | | L | | | | | <u>~</u> | _ _ |
| Approved by (Signeture | eve Caffey | | Name (| Printed/Typed) | | · · · · · · · · · · · · · · · · · · · | Da MA R | 24 | 2015 |
| Title | Office | | | ARLSBAD | D FIELD OFFICE | | | | |
| Application approval c conduct operations the Conditions of approva | | cant holds lega | lorequita | ble title to those right | - | ect lease which would e | - | - | |
| Title 18 U.S.C. Section States any false, fictitio | 1001 and Title 43 U.S.C. Section 1212, ma us or fraudulent statements or represent | ake it a crime for | or any per matter wi | son knowingly and w thin its jurisdiction. | villfully to m | ake to any department o | or agency o | f the Unit | ed |
| (Continued on page | age 2) | | | | | *(Inst | ructions | on pag | e 2) |
| Capitan Con | trolled Water Basin | | | ŀ | (# 03/1 | o 15 | | | |

~

r

SEE ATTACHED FOR CONDITIONS OF APPROVAL

Approval Subject to General Requirements & Special Stipulations Attached

MAP 3 1 2015

HOBBS OCD

MAR 3 0 2015

DRILLING PLAN: BLM COMPLIANCE

(Supplement to BLM 3160-3)

APACHE CORPORATION (OGRID: 873) WEST BLINEBRY DRINKARD UNIT #221W

Projected TD: 7200' GL: 3464'

RECEIVED

2300' FSL & 500' FEL Sec: 17 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 | 4136' |
|----------------------|---------|------------|-------|
| Rustler | 1250' | Glorieta | 5175' |
| Top of Salt | 1340' | Paddock | 5240' |
| Base of Salt/Tansill | 2513' | Blinebry | 5680' |
| Yates | 2656' | Tubb | 6126′ |
| Seven Rivers | 2899' | Drinkard | 6437' |
| Queen | 3463' | ABO | 6683' |
| Grayburg | 3746′ | TD | 7200' |

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.

CASING PROGRAM: / All casing is new & API approved

| HOLE SIZE | DEPTH / | OD CSG | WEIGHT | COLLAR | GRADE | COLLAPSE | BURST | TENSION |
|-----------|------------------------|--------|--------|--------|-------|----------|-------|---------|
| 11″ | 0' - 1275 ' | 8-5/8" | 24# | STC | J-55 | 1.0 | 1.21 | 1.8 |
| 7-7/8″ | 0'-7200' | 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, 8.962 gal/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. <u>5-1/2" Production (Cmt to surf / 30 % excess cmt):</u>

Lead: 620 sx (35:65) Poz Cl 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

<u>Tail:</u> 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.

WEST BLINEBRY DRINKARD UNIT #221W

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 3000psi using test plug & utilized continuously until TD is reached. The BOP will be tested at 3000psi, maximum surface pressure is not expected to exceed 3M psi, BHP is calculated to be approximately 3168 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)

| Jul | INTERVAL 12 TO | MW (ppg) | VISC (sec/qt) | FLUID LOSS (cc) | MUD TYPE |
|-----|----------------|------------|---------------|-----------------|-------------|
| CAH | 0'-1275' 0 0 | 8.3 - 8.8 | 28 - 32 | NC | Fresh Water |
| | 1275' - 7200' | 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_2S in this area. If H_2S 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: 3168 psi</u> and estimated <u>BHT: 115°</u>.

9. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

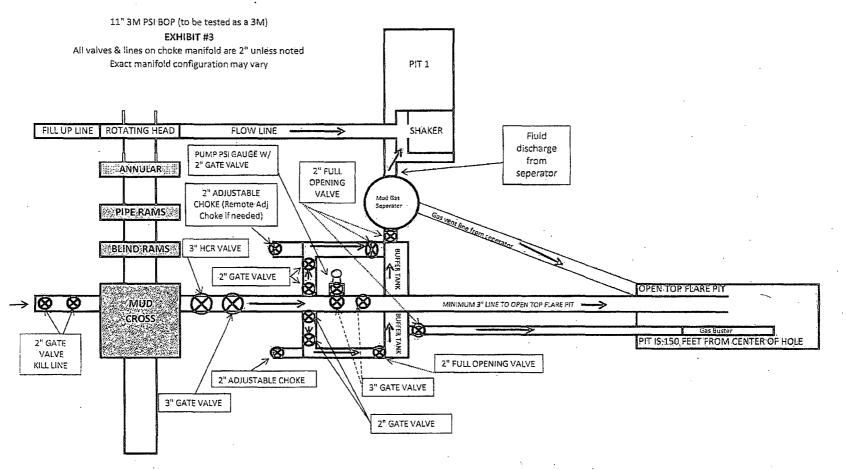
Road and location construction will begin after BLM has approved APD. Anticipated spud date will be as soon after BLM approval and as soon as rig will be available. Move in operations and drilling is expected to take approx <u>10 days</u>. If production casing is run then an additional <u>90 days</u> 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:

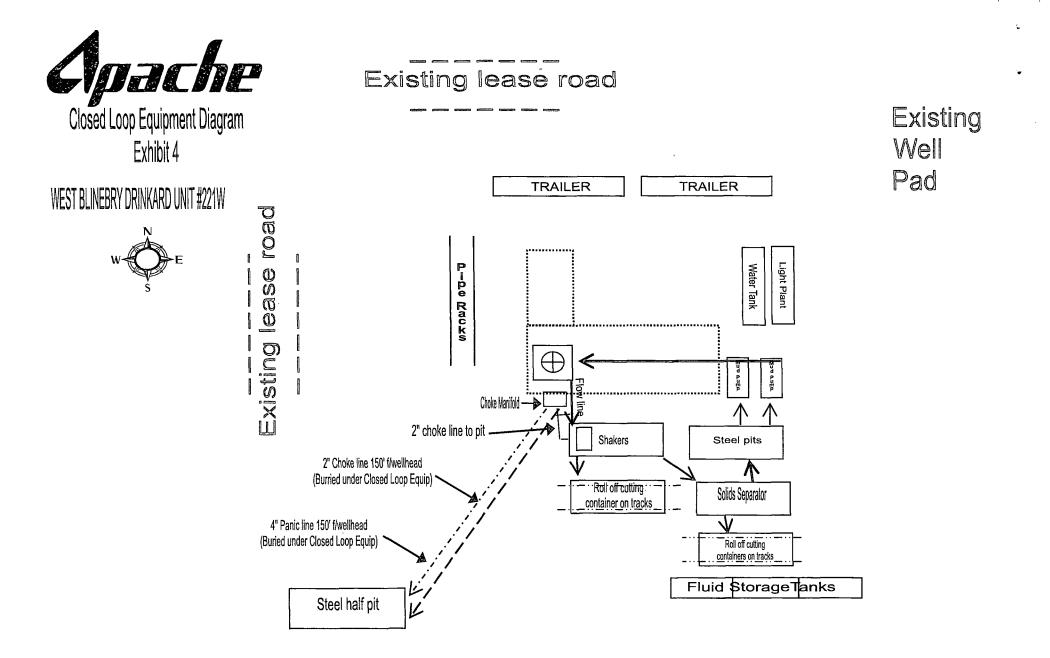
After running csg, cased hole Gamma Ray, Neutron Collar logs will be run from TD back to all possible productive zones. The Eunice; BII-Tu-Dr, North formation will be perforated to increase oil recovery. The well will be tested & potentialed as a water injection well.

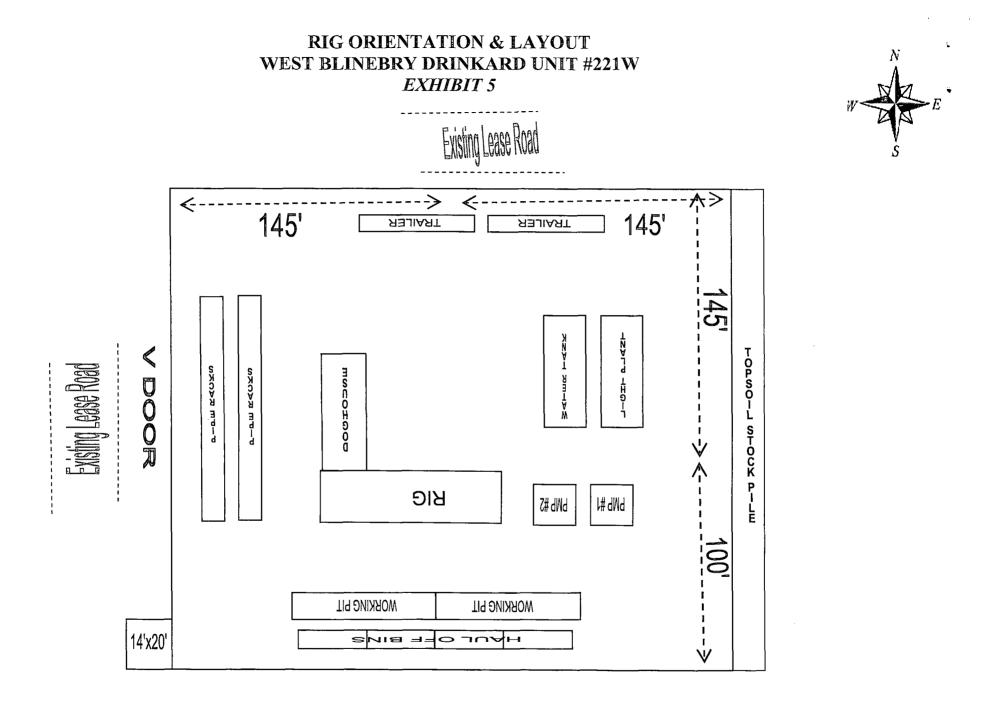
WEST BLINEBRY DRINKARD UNIT #221W

APACHE BOP AND CHOKE MANIFOLD SCHEMATIC



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





PRIVATE SURFACE OWNER AGREEMENT

,

.

HOBBS OCD

MAR 3 0 2015

| OPERATOR: APACHE CORPORATION | |
|--|----------|
| WELL NAME: WEST BLINEBRY DRINKARD UNIT #221W | RECEIVED |
| SECTION: <u>8</u> TOWNSHIP: <u>21S</u> RANGE: <u>37E</u> | |
| LOCATION: 2300' FSL & 500' FEL COUNTY: LEA STATE: NM | |
| LEASE NUMBER: NMNM-032096A | |
| STATEMENT OF SURFACE USE | |

| CHEVRON | | | |
|-----------------|--|--|--|
| BOX 285 | | | |
| USTON, TX 77001 | | | |
| 2-687-7104 | | | |
|) | | | |

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: | Mexall fine |
| DATE: | 5/08/2014 |
| TITLE: | DRILLING ENGINEER |

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.

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT CARLSBAD FIELD OFFICE 620 E. GREENE STREET CARLSBAD, NM 88220

HOBBS OCD

MAR 3 0 2015

RECEIVED

OPERATOR CERTIFICATION

I HEARBY CERTIFY THAT I, OR SOMEONE UNDER MY DIRECT SUPERVISION, HAVE INSPECTED THE DRILL SITE AND ACCESS ROUTE PROPOSED HEREIN; THAT I AM FAMILIAR WITH THE CONDITIONS WHICH CURRENTLY EXIST; THAT I HAVE FULL KNOWLEDGE OF STATE AND FEDERAL laws applicable to this operation; that the statements made in the APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

| Executed this | day of <u>Ma</u> | y i | 2014 | | |
|---------------------------|---------------------|------------------|-------------------|---------|---------------|
| Well: WES | T BLINEBRY DR | INKARI | D UNIT # | 221W | |
| Operator Name: | | | | | |
| Signature: Manuel | I Shre | | Printed | Name: | MAXWELL GROVE |
| Title: Drilling Engineer | | | Date: | 05/0 | 8/2014 |
| Email (optional): | maxwell.g | rove@ | apacheco | orp.com | |
| Street or Box: | 303 Veterans | Airpar | <u>k Ln., Ste</u> | . 1000 | |
| City, State, Zip Code: | Midland, TX | 7970 | 5 | | |
| Telephone: | 281 | -302-2 | 881 | | |
| Field Representative (if | not above sign | ator <u>y)</u> : | | | |
| Address (if different fro | m above): | | | | |
| Telephone (if different t | rom above <u>):</u> | | | _ | |
| Email (optional): | | | | | |

Agents not directly employed by the operator must submit a letter from the operator authorizing that the agent to act or file this application on their behalf.