

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

OCD Hobbs

FORM APPROVED  
OMB No. 1004-0137  
Expires: October 31, 2014

**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 page 2

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator  
Apache Corporation (873)

3a. Address  
303 Veterans Airpark Lane, Suite 1000  
Midland, TX 79705

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

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

1980' FNL & 660' FEL UL H Sec 17 T21S R37E

5. Lease Serial No.  
NMLC 032096A

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.  
West Blinbry Drinkard Unit (WBDU) #066 / 37346

9. API Well No.  
30-025-06638

10. Field and Pool or Exploratory Area  
Eunice; B-T-D, North (22900)

11. County or Parish, State  
Lea County, NM

12. CHECK THE 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 type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input checked="" 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 recompleat 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 must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must 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 intends to convert this well to injection, per the attached procedure. A copy of the NMOCD Injection Permit WFX-913 is also attached.

**SEE ATTACHED FOR  
CONDITIONS OF APPROVAL**

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

Reesa Fisher

Title Sr. Staff Reg Analyst

Signature

*Reesa Fisher*

Date 05/01/2014

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

Approved by

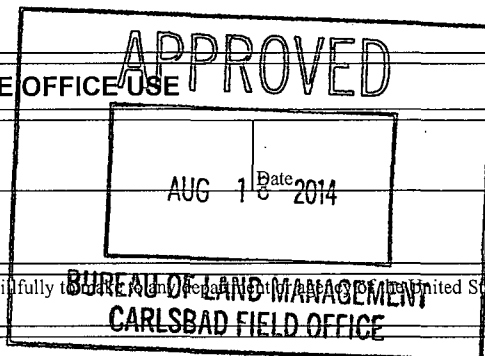
Title

Office

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.

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 any false or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)



**SUBJECT TO LIKE  
APPROVAL BY STATE**

**AUG 27 2014**

*MJB/OC 8/27/2014*

## **WBDU 66 (API: 30-25-06638) Proposed Procedure**

### **Deepen Well, Run Liner, and Convert to Injection in the Drinkard Formation**

May 1, 2014

**Day 1:** MIRU SR. POOH and LD pump and rods. ND WH and NU BOPs. POOH and LD 2-7/8" production tubing.

**Day 2:** PU & RIH w/CIBP on 2-7/8" work string. Set CIBP at +/-3600', POOH

MIRU WL, log well with GR/CBL/CCL from +/-3600' to surface, POOH. RIH w/ casing punch and perforate casing above TOC, POOH. Establish circulation behind 7" casing to surface

**Day 3:** PU & RIH w/ cement retainer on 2-7/8" work string and set retainer

MIRU cementers, cement 7" casing to surface with +/-650 sx (estimated, confirm volumes) of Class C cement (weight 14.8 ppg, yield 1.33 cf/sack). POOH w/ 2-7/8" work string

**Day 4:** PU & RIH w/ bit on 2-7/8" work string, drill out cement and cement retainer

**Day 5:** Continue to drill out cement and cement retainer, circulate well clean. POOH

MIRU WL, log well with GR/CBL/CCL from +/-3600' to surface, POOH

**Day 6:** RIH w/ 2-7/8" work string & bit. Drill out CIBP. RIH to 6610' and drill out cement to TD @ 6645', circulate LCM as necessary

**Day 7:** Cont. to drill out cement to TD @ 6645', drill well out to new TD @ +/-6780', circulate LCM as necessary

**Day 8:** Cont. to drill well out to new TD @ +/-6780', circulate LCM as necessary. Circulate wellbore clean and POOH and LD 2-7/8" work string

**Day 9:** MIRU WL, run GR/CNL/CBL/CCL log from PBTD to surface, POOH. Send logs to Midland

**Day 10:** RU casing crew and equipment and RIH with 4-1/2" 11.6 lb/ft LTC 8 RD J-55 casing with DV tool (set at +/- 5500'), float collar, and float shoe to +/- 6780'. Perform two stage cement job to surface as follows:

- a. Pump first stage consisting of 10 bbl fresh water flush, 40 bbl seal bond LCM spacer, and 195 sacks of 50:50 Fly Ash (Pozzolan):Class C cement + additives (weight 14.2 ppg, yield 1.31 cf/sack, volume 45.5 bbls, 50% excess slurry)
- b. Drop plug, displace with 105 bbl fresh water (confirm volumes) and bump plug. Drop dart, open DV tool
- c. Circulate through stage tool with fresh water until setting time for first cement stage has elapsed
- d. Pump second cement stage consisting of 20 bbl fresh water flush, lead slurry of 330 sacks 35:65 Fly Ash (Pozzolan):Class C cement + additives (weight 12.5 ppg, yield 2.13 cf/sack, 125.5 bbl), tail slurry of 100 sacks of class C cement + additives (weight 14.8 ppg, yield 1.33 cf/sack, 23.7 bbl)
- e. Drop DV tool plug, displace with 85.4 bbl fresh water (confirm volumes)

**Day 11:** WOC

**Day 12:** RIH w/ 3-3/4" bit on 2-3/8" work string. Drill out DV tool, float collar and cement to +/- 6765'. Circulate clean. POOH

**Day 13:** MIRU WL and RIH w/ GR/CBL/CCL, log well from TD to surface, 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 14:** Cont. RIH w/ treating packer on 2-3/8" work string. Set packer @ +/-6500'

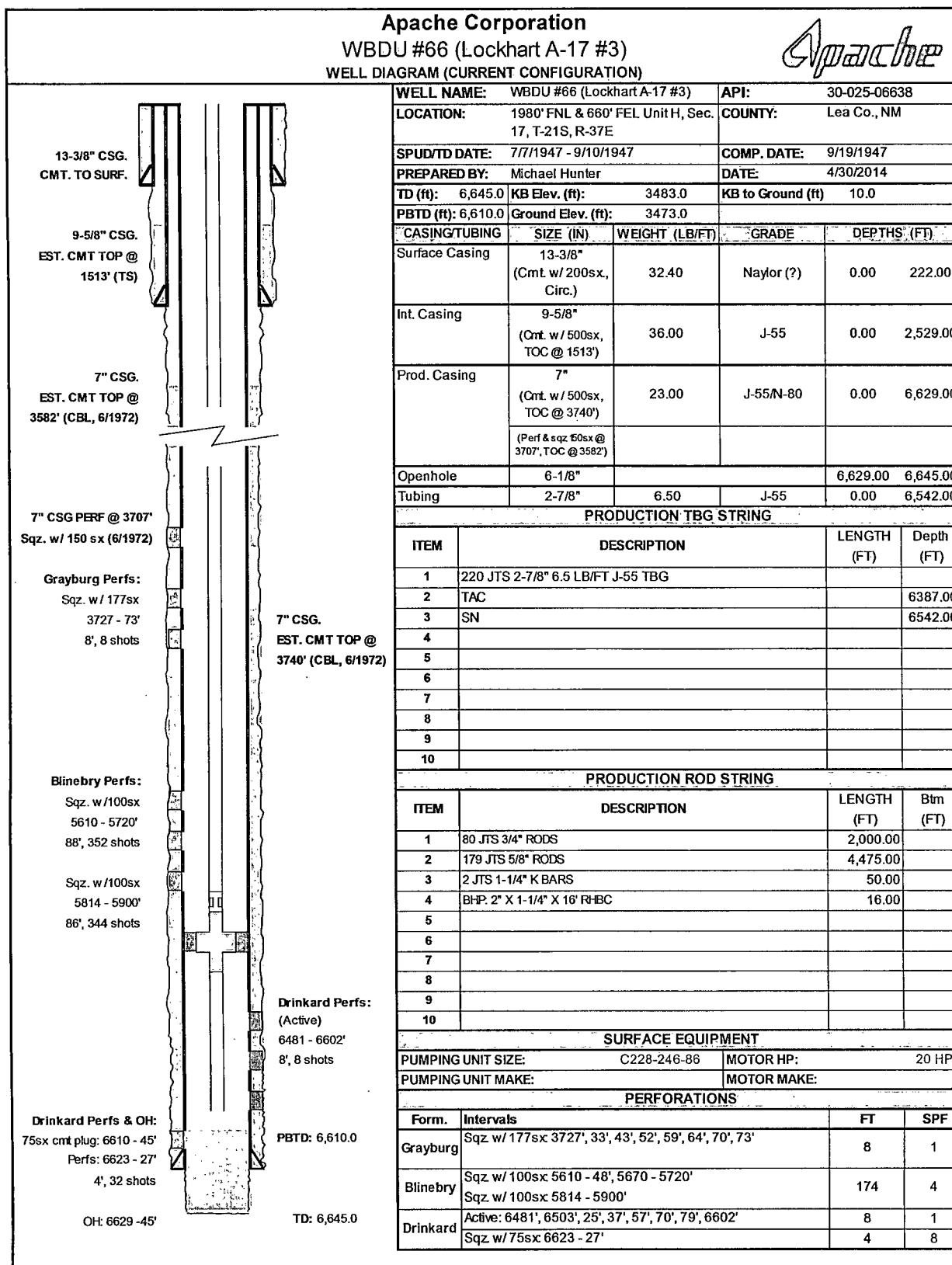
MIRU acidizers. Acidize the Drinkard w/10,000 gals 15% HCl and rock salt in 3 equal stages @ +/- 8 BPM. Release packer. Wash out salt. POOH

**Day 15:** PU and RIH with 4-1/2" 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 @ +/-6500'. Release on/off tool and pressure test casing to 500 psi. POOH and LD 2-3/8" work string

**Day 16:** 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 SR

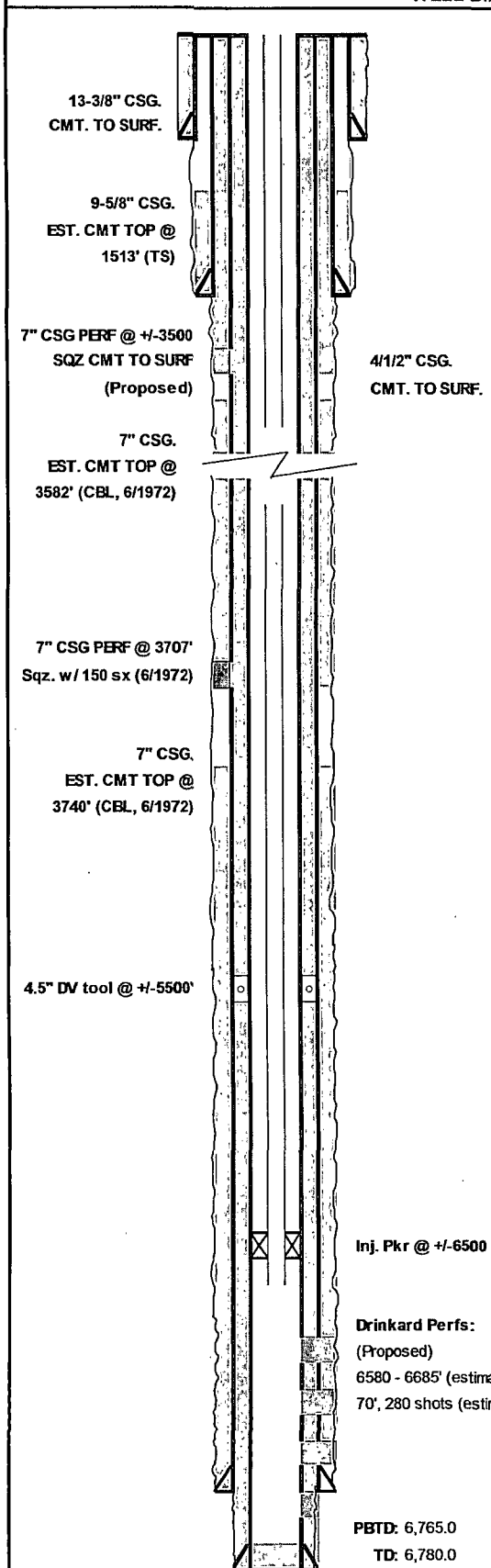
**Day 17:** Perform MIT test for NM OCD. Place well on injection

# Current Wellbore Diagram



# Proposed Wellbore Diagram

## Apache Corporation WBDU #66 (Lockhart A-17 #3) WELL DIAGRAM (PROPOSED CONFIGURATION)



<b>WELL NAME:</b> WBDU #66 (Lockhart A-17 #3)		<b>API:</b> 30-025-06638			
<b>LOCATION:</b> 1980' FNL & 660' FEL Unit H, Sec. 17, T-21S, R-37E		<b>COUNTY:</b> Lea Co., NM			
<b>SPUD/TD DATE:</b> 7/7/1947 - 9/10/1947		<b>COMP. DATE:</b> 9/19/1947			
<b>PREPARED BY:</b> Michael Hunter		<b>DATE:</b> 4/30/2014			
<b>TD (ft):</b> 6,780.0	<b>KB Elev. (ft):</b> 3483.0	<b>KB to Ground (ft)</b> 10.0			
<b>PBTD (ft):</b> 6,765.0	<b>Ground Elev. (ft):</b> 3473.0				
<b>CASING/TUBING</b>	<b>SIZE (IN)</b>	<b>WEIGHT (LB/FT)</b>	<b>GRADE</b>	<b>DEPTHS (FT)</b>	
Surface Casing	13-3/8" (Cmt. w/ 200sx, Circ.)	32.40	Naylor (?)	0.00	222.00
Int. Casing	9-5/8" (Cmt. w/ 500sx, TOC @ 1513')	36.00	J-55	0.00	2,529.00
Prod. Casing	7" (Cmt. w/ 500sx, TOC @ 3740')  (Perf & sqz 60sx @ 3707', TOC @ 3582')  (Perf @ +/-3500, sqz cmt to surf)	23.00	J-55/N-80	0.00	6,629.00
Liner	4-1/2" (Cmt. to surf)	11.60	J-55	0.00	6,780.00
Injection Tubing	2-3/8"	4.70	J-55 IPC	0.00	6,514.90
<b>INJECTION TBG STRING</b>					
<b>ITEM</b>	<b>DESCRIPTION</b>			<b>LENGTH (FT)</b>	<b>Depth (FT)</b>
1	2-3/8" 4.7 LB/FT J-55 IPC TBG			6,492.00	6492.00
2	2-3/8" ON/OFF TOOL W/ 1.78 F PROFILE			1.80	6493.80
3	2-3/8" X 4-1/2" NICKLE PLATED ARROW-SET PKR			6.20	6500.00
4	2-3/8" 4.7 LB/FT J-55 IPC TBG			8.00	6508.00
5	2-3/8" PROFILE NIPPLE 1.50 R			0.90	6508.90
6	2-3/8" 4.7 LB/FT J-55 IPC TBG			6.00	6,514.90
7					
8					
9					
10					
<b>PERFORATIONS</b>					
<b>Form.</b>	<b>Intervals</b>			<b>FT</b>	<b>SPF</b>
Blinebry					
Tubb					
Drinkard	Proposed: 6550 - 6685' (estimated)			70	4

Inj. Pkr @ +/-6500

**Drinkard Perfs:**  
(Proposed)  
6580 - 6685' (estimated)  
70', 280 shots (estimat

PBTD: 6,765.0

TD: 6,780.0

## **Conditions of Approval**

**Apache Corporation  
West Blinebry Drinkard Unit - 66  
API 3002506638, T21S-R37E, Sec 17**

August 18, 2014

1. This conversion to injection is listed on the Unit Plan of Development and is approved as written with this added list of conditions.
2. Subject to like approval by the New Mexico Oil Conservation Division.
3. Surface disturbance beyond the existing pad shall have prior approval.
4. 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.
5. Functional H<sub>2</sub>S monitoring equipment shall be on location.
6. 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.
7. 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.
8. **It is required that the 7" x 9 5/8" annulus be cemented from a minimum of 50' below the 9 5/8" shoe to a minimum of 50' above the shoe (circulating cement to surface is encouraged). Verify that cement coverage with a CBL.**
9. **It is required that the 9 5/8" x 13 3/8" annulus be cemented from a minimum of 50' below the 13 3/8" shoe to a minimum of 50' above the shoe. Verify that cement coverage by circulating cement to surface.**
10. **After cementing the 4 1/2" liner and before perforating, perform a charted casing integrity test of 750 psig, minimum. Pressure leakoff may require correction for approval. Include a copy of the chart in the subsequent sundry for this workover. Verify all annular casing vents are plumbed to surface and open to the surface during this pressure test.**

11. **Provide BLM with electronic copies (Adobe Acrobat Document) of all cement bond log records of this workover. The CBLs may be attached to a [pswartz@blm.gov](mailto:pswartz@blm.gov) email. The CFO BLM on call engineer may be reached at 575-706-2779.**
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.
14. Submit the BLM Form 3160-4 **Recompletion Report** within 30 days of the date all BLM approved procedures are complete.

Access information for **use of Form 3160-5** "Sundry Notices and Reports on Wells"

NM Fed Regs & Forms - [http://www.blm.gov/nm/st/en/prog/energy/oil\\_and\\_gas.html](http://www.blm.gov/nm/st/en/prog/energy/oil_and_gas.html)

§ 43 CFR 3162.3-2 Subsequent Well Operations.

§ 43 CFR 3160.0-9 (c)(1) Information collection.

§ 3162.4-1 (c) Well records and reports.