

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

OCD-HOBBS

FORM APPROVED  
OMB No 1004-0137  
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.**

5. Lease Serial No.  
LC031695B

6. If Indian, Allottee or Tribe Name

**SUBMIT IN TRIPLICATE – Other instructions on page 2.**

1. Type of Well

☒ Oil Well

☐ Gas Well

☐ Other

2. Name of Operator  
ConocoPhillips Company

3a. Address  
P.O. Box 51810  
Midland, Texas 79710-1810

3b. Phone No. (include area code)  
432-688-6913

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

8. Well Name and No.  
Warren Unit #93

9. API Well No.  
30-025-27584

10. Field and Pool or Exploratory Area  
Warren: Blinebry/Tubb O&G

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
660 FSL & 1980 FWL, UL' N of Section 33, T20S, 38E

11. Country or Parish, State  
Lea, 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 checked="" type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input 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 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 must 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 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.)

ConocoPhillips respectfully submits the attached procedure for a recompletion attempt into the San Andres formation with perfs from 4030-4137'.

Please see the attached procedure for further information.

Recomplete by 10/01/09

AFTER RECOMPLETION AND TESTING  
PLEASE SUBMIT 3160-4 COMPLETION  
REPORT FOR THE Grayburg/Upper San Andres  
INTERVAL(S) WITHIN 30 DAYS

RECEIVED

MAR 04 2009

HOBBSOCD

TA approved until after well is recompleted

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

Title Regulatory Specialist

Signature

Date 02/25/2009

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Petroleum Engineer

FEB 28 2009

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

Date

Office

CFO

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.

(Instructions on page 2)

**WARREN UNIT #93**  
**WBS ELEMENT – WA5.CNM. \_\_\_\_\_**  
WellView Well Name – **WARREN UNIT 093**  
**Re-Completion Procedure**

---

February 3, 2009

**Objective:** Recomplete to the Grayburg/Upper San Andres formation.

COPC WI: 37.5%	COPC NRI: 25%	
Well Status: TA'd	Well Type: Oil Well	County: Lea
Area: Permian	Field: Blinebry O&G	Team: Permian Oil
Venting: Permit not required	Flaring: Permit not required	H <sub>2</sub> S: Possible
Well Control: Class 2 Category 1 (post perforating & post stimulation)		

**IMPORTANCE OF SAFETY**

Safe operations are of utmost importance at all ConocoPhillips properties and facilities. To further this goal, the ConocoPhillips Supervisor at the location shall request tailgate safety meetings prior to initiation of work and also prior to any critical operations. All company, contract, and service personnel then present shall attend these tailgate safety meetings at the location. All parties shall review the proposed upcoming steps, procedures, and potentially hazardous situations. Occurrence of these meetings shall be recorded in the WellView daily report.

**History / Justification**

The purpose of the proposed project is to recomplete the Warren Unit #93, a temporarily abandoned well, to the Grayburg/Upper San Andres formation. The subject well was originally drilled to 7000' in 1982 and completed in the Blinebry from 5792-6170'. The Tubb (6430-6687') and Lower Blinebry (6225-6410') were added in 1994. The overall perf'd interval was from 5835-6285'. The Warren Unit #91 was a disappointing producer. The Blinebry cum'd 15,085 BO, 70,753 Mcf with 12,292 BW during its lifetime. The well was temporarily abandoned in July 1996.

Apache recently drilled and completed the Hawk B-3 #34 to 4550'. The well is a 40 acre offset to the WU #93 and was completed in the equivalent formations. The well was put on 8/11/08 making 20 BO, 196 BW, and 23 Mcf. Another offset well, the Apache Livingston #15, has cum'd over 13,000 BO since it was recompleted in 2004.

An initial rate of 20 BOPD with 25 Mcf/d is projected based upon the initial rates of nearby wells and log data. Economics were performed using an exponential decline rate of 25% per year, a recompletion cost of \$375,000, a facilities cost of \$150,000, and an operating cost of \$7.35/BOE per year. ConocoPhillips owns a 37.5% WI and a NRI of 32.81% in the Warren Unit lease. This project yields an ATAX ROR of 15.6% with a NPV of \$8M at 13%.

Warren Unit #093  
Recomplete to Grayburg/Upper San Andres

**AFE Number:** WA5.CNM. \_\_\_\_\_

**API Number:** 30-025-27584

**Field:** Warren Blinebry Tubb O&G

**Location:** 660' FSL & 1980' FWL; Sec. 33, T-20-S, R-38-E, Lea County, NM

**Depths:** TD = 7000' PBDT = 5750'

**Elevation:** GR = 3496' KB = 3507'

**Casing Data:**

**Existing & Proposed Casing, Tubing and Packer Information**

	OD (in)	Depth (ft)	ID/Drift (inches)	Weight (#/ft)	Grade	Burst	Burst w/ 1.15 D.F.	Collapse (psi)	Collapse w/ 1.05 D.F.	Volume (Bbls/Ft)
Sur. Csg.	9 $\frac{5}{8}$	1400'	8 921/8.765	36#	K-55	3520	3060	2020	1924	.0773
Prod. Csg	7"	6995'	6.276/6.151	26#	K-55	4980	4330	4320	4114	.0383
Prod. Tbg	2 $\frac{7}{8}$ "	5321'±	2.441/2 347	6.5#	J-55	7260	6313	7680	7314	.00579

Top of Cement: 2050' by temp survey

Casing Fluid: 2% KCl (0.438 psi/ft)

**Proposed Cased Hole Perforations**

Formation	Perforations (MD)	Frac Grad	Perf Feet	SPF	Phase	Zero Hole	Holes	Anticipated Reservoir Pressure	Reservoir Temp
Grayburg	4030-4050'	.75	20	2	90°	No	40	1874	100°
Grayburg	4066-4086'	.75	20	2	90°	No	40	1891	100°
Upper San Andres	4117-4137'	.75	20	2	90°	No	40	1914	100°

Correlation Log: Dresser Atlas Dual Laterolog dated 2/28/82

Gun Type: 4" HEGS-41B HJ SX1, 22.7 gram HMX, (API 19B: Pen – 21.67", EHD - 0.40")

**Prepared by: David McPherson: Contract Production Engineer, Panhandle/Permian Group**  
**Office: 1(832) 486-2203      Mobile: 1(903) 316-4272      Home: 1(903) 894-3547**

## GENERAL NOTES

1. No project or task is to be performed unless it can be done safely and without harm to the environment. All work must comply with all State and Federal regulations and with COPC Safety and Environmental Policies.
2. Conduct daily safety meetings and review all procedures with all contractors prior to performing the operation.
3. Report all activity on the WellView Daily Completion Work-Over Report.
4. Insure contractors are familiar with and comply with all relevant COPC safety/environmental policies.
5. Spills are to be prevented. Utilize a vacuum truck as necessary.
- 6. All references to 2% KCl water is powdered 2% KCl.**
7. Throughout the entire completion process, any fluids from the well-bore that are displaced or produced must be sent through the flow-back equipment so that the fluids can be properly disposed.
8. Verify that all pressured lines and fittings meet or exceed the MPSP (Maximum Predicted Surface Pressure) for the treatment lines of **6000** psi for the pressure test during stimulation operations. Maximum treatment pressure during the sand frac will be **5500** psi. MPSP from the zone should not be greater than 2000 psi before & after stimulation operations of the Grayburg/San Andres zone.
9. Well control for this well will be Class 2, Category 1 before and after stimulation. Expected Shut in Casing Pressures (SICP) before & after stimulation should not exceed 2000 psi.

## Mid-Continent / Permian / Hobbs East Contact List:

Reservoir Engineer:	D. Pecore	832-486-2145
Production Engineer:	J. Lowder	432-368-1609
Facilities Engineer Tech:	L. Johansen	432-368-1223
Operations Supervisor:	J. Coy	505-391-3127
Projects Planner:	D. Garrett	505-368-1410
Production Foreman:	V. Mackey	505-391-3129

### **Recommended Procedure**

1. MIRU workover unit. ND wellhead and NU BOP's and test. Load casing with 9 ppg brine and test to 1000 psi and hold for 30 minutes.
2. PU and RIH with 6 $\frac{1}{8}$ " bit and 7" casing scraper on 2 $\frac{7}{8}$ " 6.5# workstring to 5750'± circulating well clean with 2% KCL water. POOH with casing scraper and drill bit. Lay down 2 $\frac{7}{8}$ " tbg. LD casing scraper and drill bit.
3. MIRU Schlumberger wireline. RU 1000 psi lubricator. Run GR-CCL-Neutron log from RBP @ 5750'± to 3500'±. Correlate to Dresser Atlas Dual Laterolog dated 2/28/82. Dump bail 35' of cement on top of RBP @ 5750'±. Perforate 4030-4050', 4066-4086', and 4117-4137' with 2 SPF, 90° phasing, from top to bottom, using 4" HEGS-41B HJ SX1, 22.7 gram HMX, (API 19B: Pen – 21.67", EHD - 0.40").
4. RDMO wireline and lubricator.
5. PU 3 $\frac{1}{2}$ " workstring and RIH with 5 $\frac{1}{2}$ " packer. Test workstring to 6,000 psi while RIH. Set packer at 4900'±.
6. Spot four 500 bbl clean, lined frac tanks and fill with 2% KCl. Add biocide to the first load of each tank.
7. MIRU Schlumberger pumping services equipment. RU and test all lines to 7,500 psi and monitor for 5 min. Make sure the pressure does not decrease more than 300 psi over the 5 min. Pressure up casing / tubing annulus to 300 psi and monitor during job.
8. Perform acid ballout with 3000 gals of 20% HCl acid at 6-to-10 BPM with 144 1.1 SG Bioballs as per schedule.. Surge the well 2-3 times to dislodge balls. Shut down for 30 minutes to allow balls to fall.  
  
Note: It is a ConocoPhillips policy to have shower facilities on location when using acid.
9. Fracture treat the Grayburg/SA with 39,000 gal of YF125ST containing 80,000 lbs of 20/40 Jordan sand with prop net as per attached treating schedule. Set treating line pop off at 7000 psi. Set pump trips at 6500 psi. Set annulus pop off at 700 psi. Frac at 30± BPM with maximum wellhead treating pressure of 5500 psi.
10. Obtain ISIP and 5 minute, 10 minute, and 15 minute shut-in pressures. Close Hydraulic Master Valve. RD Schlumberger Iron.
11. Unseat packer. Tag for fill, reverse out any excess sand from tubing if flush volume not achieved. POOH with 5 $\frac{1}{2}$ " packer and 3 $\frac{1}{2}$ " workstring. Lay down 3 $\frac{1}{2}$ " workstring and packer.
12. TIH with 4 $\frac{3}{4}$ " bit to PBTD @ 5705±. Do not drill cement plug. Circulate out any excess sand from frac jobs. When wellbore is clean POOH laying down 2 $\frac{7}{8}$ " workstring.
13. Pick up the 2- $\frac{7}{8}$ ", 6.5 lb/ft, J-55 tubing string (per Vernon Mackey).

14. Run the production tubing in the hole. Place the EOT 31'± @ 4168'± with the tubing anchor set @ 3980'±. Maintain a dynamic fluid column (DFC) while running tubing. (Trickle some 2% KCl water down the tubing head valve.)
15. ND BOP's and NU wellhead. RIH with pump and rods. Space and hang well on. Load tubing and check pump action.
16. RDMO well service rig and return well to production. Report results on morning report.

# WARREN UNIT #093

## PROPOSED WELLBORE DIAGRAM

API #:	30-025-27584				
FIELD:	Skaggs-Grayburg				
CO ST:	Lea, NM		AREA Hobbs East		
SECTION:	33	TOWNSHIP:	20S	RANGE:	38E
LOCATION:	660' FSL & 1980' FWL				
DATES:	SPUD: 2/7/82		IC: 5/24/82		
	LATEST RIG WORKOVER:				
	DIAGRAM REVISED: 02/03/09 by D. McPherson				

CASING			TUBING
Hole Size	12¼"	8½"	
Pipe Size	9½"	7"	2½"
Weight	36#	26#	6.5#
Grade	K-55	K-55	J-55
Thread	ST&C	ST&C	8rd EUE
Depth	1400'	6995'	4168'±

ELEVATION: GR 3496'; KB 3507'  
TREE CONNECTION:

Tubing Description	Length	From	To
Elevation	11.00	0.00	11.00
130± jts 2½" 6.5# J-55 tubing	3969.00	11.00	3980.00
1 - 5-½x 2½" TAC	4.00	3980.00	3984.00
4± jts 2½" 6.5# J-55 tubing	122.00	3984.00	4106.00
1 - Tbg IPC	30.00	4106.00	4136.00
1 - 2½" SN	1.10	4136.00	4137.10
1 - SOPMA	31.00	4137.10	4168.10

Rod Description	Length	From	To
1 - 1¼" polished rod	22.00	-2.00	20.00
62± ⅝" Norris KD-90 rods	1550.00	20.00	1570.00
94± ¾" Norris KD-90 rods	2350.00	1570.00	3920.00
4 - 1½" Flexbar K	200.00	3920.00	4120.00
1 - 1½" insert pump	16.00	4120.00	4136.00

Pump Unit: C-456-305-120

9½" @ 1400' cmt w/ 525 sxs to surface

TOC @ 2050' by temp survey

Tbg Anchor @ 3980'±

Perfs: 4030-4050', 4066-4086', 4117-4137'  
EOT @ 4168'±

DV tool @ 4488'  
2nd stage cmt w/ 200 sxs

35' cement on top of plug  
RBP @ 5750' (7/12/96)  
Perfs: 5792-6170' (1982) Upper Blinbry  
Frac'd w/ 26800# 20/40 SD & 5040# 10/20 SD  
Perfs: 6225-6410' (1994) Lower Blinbry  
Frac'd w/ 60000# 16/30 SD  
Perfs: 6430-6687' (1994) Tubb  
Frac'd w/ 167,600# 16/30 SD  
Cement Retainer @ 6740' (1994)

Perfs: 6758-6879' (1982) Drinkard

7" @ 6995' 1st stage cmt w/ 992 sxs

## COMMENTS

TD

7000'

# WARREN UNIT #093

## CURRENT WELLBORE DIAGRAM

API #:	30-025-27584				
FIELD:	Warren Blinebry Tubb O&G				
CO ST:	Lea, NM		AREA:	Hobbs East	
SECTION:	33	TOWNSHIP:	20S	RANGE:	38E
LOCATION:	660' FSL & 1980' FWL				
DATES:	SPUD: 2/7/82		IC: 5/24/82		
	LATEST RIG WORKOVER:				
	DIAGRAM REVISED: 10/24/07 by D. McPherson				

	CASING		TUBING	
Hole Size	12¼"	8½"		
Pipe Size	9½"	7"		None
Weight	36#	26#		
Grade	K-55	K-55		
Thread	ST&C	ST&C		
Depth	1400'	6995'		

ELEVATION: GR 3496'; KB 3507'  
TREE CONNECTION:

Tubing Description	Length From	To
None		
Rod Description	Length From	To
None		
Pump Unit:		

9½" @ 1400' cmt w/ 525 sxs to surface

TOC @ 2050' by temp survey

DV tool @ 4488'  
2nd stage cmt w/ 200 sxs

RBP @ 5750' (7/12/96)  
Perfs: 5792-6170' (1982) Upper Blinbry  
Frac'd w/ 26800# 20/40 SD & 5040# 10/20 SD  
Perfs: 6225-6410' (1994) Lower Blinbry  
Frac'd w/ 60000# 16/30 SD  
Perfs: 6430-6687' (1994) Tubb  
Frac'd w/ 167,600# 16/30 SD  
Cement Retainer @ 6740' (1994)

Perfs: 6758-6879' (1982) Drinkard  
7" @ 6995' 1st stage cmt w/ 992 sxs

COMMENTS