

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Form C-101  
May 27, 2004

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Submit to appropriate District Office

☐ AMENDED REPORT

**APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE**

<sup>1</sup> Operator Name and Address ConocoPhillips Company 4001 Penbrook St. Odessa, TX 79762		<sup>2</sup> OGRID Number 217817
<sup>3</sup> Property Code 32479		<sup>4</sup> API Number 30 025-33677
<sup>5</sup> Property Name Deck Estate 7		<sup>6</sup> Well No. 1
<sup>9</sup> Proposed Pool 1 Blinebry Oil & Gas (06660)		<sup>10</sup> Proposed Pool 2 Hardy (Tubb Drinkard)

**7 Surface Location**

UL or lot no. L	Section 7	Township 21S	Range 37E	Lot Idn	Feet from the 1930	North/South line South	Feet from the 990	East/Westline West	County Lea
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**8 Proposed Bottom Hole Location If Different From Surface**

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/Westline	County
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**Additional Well Information**

<sup>11</sup> Work Type Code E	<sup>12</sup> Well Type Code O	<sup>13</sup> Cable/Rotary R	<sup>14</sup> Lease Type Code P	<sup>15</sup> Ground Level Elevation 3490'
<sup>16</sup> Multiple No	<sup>17</sup> Proposed Depth 10,100	<sup>18</sup> Formation Blinebry/Drinkard	<sup>19</sup> Contractor	<sup>20</sup> Spud Date 01/01/2004
Depth to Groundwater		Distance from nearest fresh water well		Distance from nearest surface water
Pit: Liner: Synthetic <input type="checkbox"/> milst thick Clay <input type="checkbox"/> Pit Volume: _____ bbls Drilling Method: _____				
Closed-Loop System <input type="checkbox"/> Fresh Water <input type="checkbox"/> Brine <input type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/>				

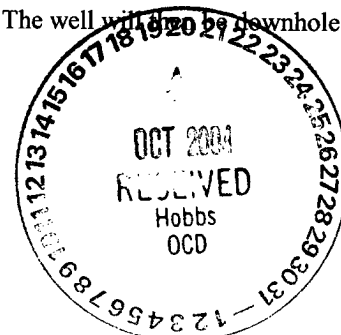
**21 Proposed Casing and Cement Program**

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
17-1/2"	K-55, 13-3/8"	54.5#	435'	455	Surface
12-1/4"	J-55, 8-5/8"	32#	3986'	1900	Surface
7-7/8"	L-80&K-55, 5-1/2"	17#	10,100'	835	TOC @3886'

<sup>22</sup> Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

ConocoPhillips proposes to recompleate this well to the Blinebry using the attached procedure. The well will be downhole commingled with Blinebry/ Drinkard production.

Permit Expires 1 Year From Approval  
Date Unless Drilling Underway  
Re-Entry



<sup>23</sup> I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOC guidelines <input checked="" type="checkbox"/> a general permit <input type="checkbox"/> or an (attached) alternative OCD-approved plan <input type="checkbox"/>		<b>OIL CONSERVATION DIVISION</b>	
Printed name: Kay Maddox		Approved by: <i>[Signature]</i>	
Title: Regulatory Agent		Title: PETROLEUM ENGINEER	
E-mail Address:		Approval Date: 20 2004 Expiration Date:	
Date: 10/15/2004	Phone: (915)368-1207	Conditions of Approval Attached <input type="checkbox"/>	



**DECK ESTATE "7" #1**  
**Blinebry Recompletion & Downhole Commingle Procedure**

**Location:** 1930' FSL & 990' FWL, Sec 7, T-21-S, R-37-E, Lea Co. New Mexico  
**AFE #:**  
**AFE Amount:** \$000,000 Gross / Net  
**Spud Date:** 12/17/96  
**API Number:** 30025 - 3367700  
**Proposed Zone/Pool:** Drinkard / Hardy Tubb-Drinkard Pool  
**Battery Destination:** New Battery

**TD:** 7176' Driller's Depth  
**PBTD:** Surface  
**DV Tools:** 7725'

**KBE:** 3504.6'  
**GLE:** 3490'  
**KBM:** 14.6' above GL

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**Existing Casing Program**

Hole Size (in)	Csg Size (in)	Depth (ft)	Wt (lb/ft)	Grade	Conn	ID	Burst (psi)	Coll (psi) *	Ten (Klbs)	Rated by
17-1/2	13-3/8	435	54.5	K-55	ST&C	12.61 5	2730	1130	547	API
12-1/4	8-5/8	3986	32	J-55	LT&C	7.921	3930	2530	417	API
7-7/8	5-1/2	0 - 646	17	L-80	LT&C	4.892	7740	6280	348	API
7-7/8	5-1/2	646 - 9243	17	K-55	LT&C	4.892	5320	4910	272	API
7-7/8	5-1/2	9243 - 10,100	17	L-80	LT&C	4.892	7740	6280	348	API

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**Project Overview:**

The proposed Blinebry recompletion will consist of pulling the existing downhole equipment from the well, setting a RBP above the Drinkard completion, perforating and sand fracturing the Blinebry interval from 5659' to 5665' and placing the well back on production in the Blinebry for 30 to 60 days to establish a stable production rate. Once the Blinebry production has stabilized the well will be pulled and the RBP retrieved and both the Drinkard and Blinebry will be downhole commingled.

The Deck Estate 7 No. 1 is currently producing from the Drinkard at a rate of 6 BOPD, 15 BWPD and 140 MCFGPD. The Blinebry recompletion is expected to add an approximate 35 BOPD and 135 MCFGPD which when commingled would be approximately 40 to 50 BOPD and 300 MCFGPD. Additional water production could be added if the Blinebry fracture treatment extends down into the lower Blinebry intervals.

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**Existing & Squeezed Perforations:**

**San Andres: Cement Squeezed:** 4018, 25, 32, 34, 70, 74, 90, 4124, 27, 31, 36, 40, 46, 50, 57 (15 Holes Total)

**Glorieta: Cement Squeezed:** 5208, 14, 24, 31, 33, 53, 54, 56, 72, 74, 76, 80, 92, 95, 98 (16 Holes Total)

**L. Glorieta: Cement Squeezed:** 5573, 75, 78, 80, 92 94 (6 Holes Total)

**Drinkard:** 6784' to 6789' (Total 75 Holes)  
6792' to 6800'  
6828' to 6834'

**Proposed Blinebry Perforations:**

**Blinebry:** 5659' to 5665' (6' NEP, Total Holes 25)

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**Well Control Requirements:**

**Well Control:** Well Control equipment and procedures will be in accordance with the ConocoPhillips Well Control Manual, Second Edition, Revision Two, dated August 1994.

**Well Category:** All zones encountered in the well are normally pressured. Since 9.5 ppg kill fluid will be used throughout the procedure the well is not anticipated to flow at any time during the operation. This well is to be considered a **Category 2** well due to expected flow rates exceeding 300 MCFGPD from the Blinebry completion after it is stimulated and unloaded. **Category 2** wells normally require two untested barriers, however the Hobbs area has been granted an exception, allowing the use of one untested barrier. Approval has been granted for use of a dynamic fluid column as that barrier.

**BOPE Class 2:** For operations the MPSP for this well is estimated to be in the range of 1000 PSIG to 2000 PSIG. A **Class 2 BOP** stack is required. The actual stack will exceed the Class 2 requirement and will consist of a hydraulic operated 5M PSIG BOP stack with tubing rams on top and a blind ram on bottom. NU shop tested BOP stack on top of companion flange. Test as per SOP.

**Workover Fluid:** Use treated 9.5 ppg brine water for duration of operations. Use dynamic head kill procedure if required to maintain control of the well during tripping and installation / removal of BOP's.

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**Wellhead Program:**

Casing Head:	8-5/8" SOW x 11" 3M
Tubing Head:	11' 3M WP X 7 1/16" 5M WP
Tubing Head Adaptor:	B-1 Adapter Flange
Type 3 Beam Pump Wellhead:	See Attached Sketch (Contains Choke on Casing)

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**Drinkard / Blinebry Artificial Lift Specs:**

(See attached beam pump design for additional information)

**PU Specs:** Existing Lufkin C320 – 000 – 120

**Tubing:** 2 7/8" L-80 (Existing)

**Rod String:** Existing Tapered 7/6 Class KD (2250' of 7/8" Rods + 4450' of 3/4" Rods)

**Rod Pump:** 25-150-RHBC 20-6-00 2 Stage HVR Type "A" (Corrosive environment with gas interference)

**Stroke Length:** 85"

**PU Speed:** 10 SPM

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**Wellbore Prep Procedure:**

**Note:** All depths referenced to 14.6' RKB.

1. RU pulling. Hook up water transport to the casing and kill well with 100 bbls of 9.5 ppg treated brine water. Use dynamic head kill procedure during installation / removal of BOP stack and tripping, if necessary.
2. TOOH with 2250' of 7/8" KD rods and 4450' of 3/4" KD rods with 6, 1.5" K bars. Visually inspect rods for worn couplings and pitting. Lay down any worn or pitted rods. Also lay down an additional -----' of 3/4" rods to allow for pump testing the shallower Blinebry for 30 to 60 days.
3. NU 5,000 PSIG WP hydraulic operated BOPE and test to 250/5000 PSIG. TOOH with the 2 7/8" L-80 production tubing. TAC set at approximately 6677' with SN at approximately 6892'.
4. If significant scale or paraffin is found on the outside of the tubing PU 4 3/4" bit and scraper and TIH to approximately 6,000'. PU 5 1/2" RBP (no ball catcher) and treating packer and TIH to set the plug at +/- 5750' (85' below the proposed Blinebry interval 5659' to 5665'). After setting the plug PU 1 joint and set the packer. Load the tubing and pressure test the plug to 4,000 PSIG. Dump 2 sks of sand on top of the RBP.
5. Release the packer and PU to 5680'. RU pump truck and spot 500 gals of 15% NEFE HCL across the proposed Blinebry perforations from 5659' to 5665'. TOOH laying down the production tubing and packer.
6. RU Schlumberger electric line services. Install lubricator and pressure test to 1,000 PSIG against the blind rams. RIH with GR/CCL and 4" OD HEGS non-ported casing guns loaded 4 SPF in 120 degree phasing to perforate the following Blinebry interval. **Note: Correlate the perforating gun using the Wedge CBL log dated Jan 1997.** The gun charge is a 22.7-gram charge to provide 0.42" perforation ID hole with 21" of penetration.

	<u>Interval</u>	<u>NEP</u>	<u>Shots</u>
Blinebry	5659' to 5665'	6'	25 Holes

7. PU 5620' of 2 7/8" N-80 workstring with a CS1 10 M treating packer, or equivalent. Hydro-test each stand to 7,000 PSIG while tripping. TIH and space out to set the packer 5620' (39' above the top Blinebry perforation at 5659' and 26' below the bottom squeezed perforation at 5594'). Land the tubing in the tubing head using an extended neck hanger with a 10,000 PSIG WP upper seal section.
8. Install a BPV and ND the BOP stack. NU a 10,000 WP Frac tree (See attached wellhead configuration sketch). Test the tubing head adaptor flange to 5,000 PSIG. Remove the BPV.
9. RU Schlumberger treating services. Install 10 M PSIG WP frac valve on the frac tree. Install treating line with nitrogen actuated relief valve. Test the tree and treating line to 6000 PSIG and set the relief valve at 5300 PSIG. Lay a staked relief line from the casing to an open frac tank. Install a second relief valve on the casing relief line set to relieve at 1,500 PSIG. Load the casing and pressure up to 500 PSIG and monitor for potential breakthrough during the frac job. Pump the acid breakdown and the sand frac as per the attached Schlumberger recommendation. Do not exceed 4800 PSIG treating pressure.

<b>TREATING LINE TEST PRESSURE:</b> A minimum 1000 psig over MATP	<b>6000</b>	<b>PSIG</b>
<b>MAXIMUM ALLOWABLE WORKING PRESSURE:</b> Based on weakest component in system. Burst pressure of 5 1/2" casing.	<b>5300</b>	<b>PSIG</b>
<b>NITROGEN POP OFF SET PRESSURE:</b> Relief pressure set at the lesser of : 300 psig less than 90% MAWP or, 300 psig over MATP	<b>5300</b>	<b>PSIG</b>
<b>MAXIMUM ALLOWABLE TREATING PRESSURE:</b> If reached, human action required.	<b>4800</b>	<b>PSIG</b>
<b>MAXIMUM ANTICIPATED TREATING PRESSURE:</b>	<b>4800</b>	<b>PSIG</b>

**Acid Breakdown:**

- Load tubing and initialize breakdown with 50 bbls of 2% KCL slick water
- Pump 1,500 gals of 15% NEFE HCL acid at 3 – 5 BPM containing 50 1.3 SG, 7/8" RCN ball sealers.
- Overdisplace breakdown with 50 bbls of 2% KCL slick water.
- Surge balls off perforations.

**Frac Treatment Leakoff Test:**

- Load tubing and pump 20 bbls of frac fluid at 6 BPM
- Pump an additional 20 bbls of frac fluid at 12 BPM
- Pump an additional 60 bbls of frac fluid at 18 BPM
- Shut down and determine fluid efficiency. Verify that there is no communication from the Blinebry perforations to the backside of the packer via squeeze perforations at 5573' to 5594'.

**Frac Treatment:**

- Load tubing and pump 10,000 gals (238 bbls) YF130ST pad at 18 BPM
- Pump 2,000 gals (48 bbls) YF125ST fluid with 2.0 ppg 20/40 Brady Sand at 18 BPM
- Pump 2,000 gals (48 bbls) YF125ST fluid with 3.0 ppg 20/40 Brady Sand at 18 BPM
- Pump 2,000 gals (48 bbls) YF125ST fluid with 4.0 ppg 20/40 Brady Sand at 18 BPM
- Pump 2,000 gals (48 bbls) YF125ST fluid with 5.0 ppg 20/40 CR 4000 at 18 BPM
- Pump 2,000 gals (48 bbls) YF125ST fluid with 6.0 ppg 20/40 CR 4000 at 18 BPM
- Flush with 1,331 gals (32 bbls) WF100 fluid at 18 BPM
- Shut down and record leakoff until fracture closure.

8. RD Schlumberger pumping services. Leave the well shut-in a minimum of 12 hours. Flow back the well until it dies.
9. Install the BPV and ND the treating tree. NU the BOP stack and conduct BOP test as per SOP. Remove the BPV.
10. Release the packer and TOOH with the tubing and packer. PU 4 3/4 bladed bit and TIH to clean out resin coated sand to the top of the RBP. TOOH with bit laying down the workstring.

11. TIH with approximately 5,690' of 2 7/8", L-55 production tubing with the open ended SN on bottom of the tubing and a 5 1/2" TAC. The bottom joint to be polylined. Space the tubing out to set the seating nipple at approximately 5,690' (or 25' below the bottom Blinebry perforation with the TAC at approximately 5,620' (38' above the top Blinebry perforation).
12. ND the BOP stack and install the B-1 adapter flange. Pump corrosion inhibitor down the tubing to coat the rods and pump as they are run in the hole. PU standard strainer nipple on the bottom of the 25-150-RHBC 20-6-00 2 Stage HVR Type "A" pump on 7/6 KD "Existing" rod string and RIH to place on beam pump. (See attached Blinebry Beam Pump Design. RD and move off.
13. Notify Champion prior to placing the well on production. As soon as the well is started have it placed on scheduled CI truck treatments. **Schedule a backside scale squeeze as soon as the fluid level is pumped off.**
14. Operator to submit a change of status form for new production. Report daily well tests and fluid levels to the Midland office for 30 days or until it pumps off and the production rate has stabilized.

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**Downhole Commingle: Downhole commingle to be done sometime following 30 to 60 days of stabilized production.**

15. **After 30 to 60 days of testing the Blinebry and receiving approval to commingle the Drinkard & Blinebry.** RU workover rig. Pump 100 bbls of 9.0 ppg treated brine water down casing to kill the well. Unseat the pump and POOH with 7/6 KD rod string. Inspect for rod and coupling wear. Replace any pitted rods or worn couplings. Notify Champion if any corrosion or pitting is noticed on the rods.
16. Remove the pumping head and install the 5,000 PSIG BOP stack. Test the BOP's to as per SOP. TOOH with 2 7/8" tubing. Visually inspect tubing for corrosion pitting. Notify Champion if any corrosion or pitting is noticed on the tubing.
17. PU retrieving head for 5 1/2" loc-set RBP and TIH to retrieve RBP set at 5,750'. Release the RBP and TOOH with tubing and plug.
18. TIH with approximately 6,810' of 2 7/8", L-55 production tubing with the open ended SN on bottom of the tubing and a 5 1/2" TAC. The bottom joint to be polylined. Space the tubing out to set the seating nipple at approximately 6,810' (20' below the bottom Drinkard perforation with the TAC at approximately 5,620' (38' above the top Blinebry perforation).
19. ND the BOP stack and install the B-1 adapter flange. Pump corrosion inhibitor down the tubing to coat the rods and pump as they are run in the hole. PU standard strainer nipple on the bottom of the 25-150-RHBC 20-6-00 2 Stage HVR Type "A" pump on 7/6 KD "Existing" rod string and RIH to place on beam pump. (See attached Drinkard / Blinebry Beam Pump Design. RD and move off.
20. Notify Champion prior to placing the well on production. As soon as the well is started have it placed on scheduled CI truck treatments. **Collect water sample and determine if a backside scale squeeze should be scheduled.**
21. Operator to submit a change of status form for new production. Report daily well tests and fluid levels to the Midland office for 30 days or until it pumps off and the production rate has stabilized.

District I

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District II

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State of New Mexico

Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, NM 87505

Form C-102

Revised June 10, 2003

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-025-33677		<sup>2</sup> Pool Code 06660		<sup>3</sup> Pool Name Blinebry Oil and Gas	
<sup>4</sup> Property Code 4995532479		<sup>5</sup> Property Name Deck Estate 7			<sup>6</sup> Well Number 1
<sup>7</sup> OGRID No. 217817		<sup>8</sup> Operator Name ConocoPhillips Company			<sup>9</sup> Elevation 3490

<sup>10</sup> Surface Location

UL or lot no. L	Section 7	Township 21S	Range 37E	Lot Idn	Feet from the 1930	North/South line South	Feet from the 990	East/West line West	County Lea
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<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<sup>12</sup> Dedicated Acres 40		<sup>13</sup> Joint or Infill		<sup>14</sup> Consolidation Code		<sup>15</sup> Order No.			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<sup>16</sup> 	<sup>17</sup> OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  Signature Kay Maddox Printed Name Regulatory Agent Title and E-mail Address 10/15/2004 Date			
	<sup>18</sup> SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. Date of Survey Signature and Seal of Professional Surveyor:			
	Certificate Number			