

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

OCD Hobbs

FORM APPROVED  
OMB NO. 1004-0135  
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.  
NMLC029405B

6. If Indian, Allottee or Tribe Name

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

**SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

8. Well Name and No.  
RUBY FEDERAL 24

9. API Well No.  
30-025-41205-00-S1

1. Type of Well  
 Oil Well  Gas Well  Other

2. Name of Operator  
CONOCOPHILLIPS COMPANY  
Contact: SUSAN B MAUNDER  
E-Mail: Susan.B.Maunder@conocophillips.com

3a. Address  
MIDLAND, TX 79710  
3b. Phone No. (include area code)  
Ph: 281-206-5281

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
Sec 18 T17S R32E NESW 2310FSL 1650FWL  
32.500158 N Lat, 103.483287 W Lon

10. Field and Pool, or Exploratory  
MALJAMAR

11. County or Parish, and State  
LEA COUNTY, NM

12. CHECK 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 checked="" type="checkbox"/> Other Subsurface Commingling
	<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 shall 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 shall be filed once testing has been completed. Final Abandonment Notices shall 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 Company respectfully requests approval to Downhole Commingle production in this well according to procedures outlined in the attached document entitled, ?Procedure: GB, SA & Yeso Recompletion?.

DHC-4681

Our intent is to commingle the production of this well immediately following recompletion. The information will be used to confirm our allocation discussed in the previously submitted document entitled, ?Field Study: Maljamar-Yeso West and Grayburg-San Andres Pools Commingle, Dated: April 23, 2014?. Please refer to this document for discussion supporting this request.

The Field Study has been discussed with Mr. Fernandez, BLM representative, by COP representative Ms. Maunder.

**SEE ATTACHED FOR  
CONDITIONS OF APPROVAL**

**APPROVED**  
*[Signature]*  
AUG 6 2014  
BUREAU OF LAND MANAGEMENT  
CARLSBAD FIELD OFFICE

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #249561 verified by the BLM Well Information System  
For CONOCOPHILLIPS COMPANY, sent to the Hobbs  
Committed to AFMSS for processing by CATHY-QUEEN on 06/19/2014 (14C00142SE)

Name (Printed/Typed) SUSAN B MAUNDER Title SENIOR REGULATORY SPECIALIST

Signature (Electronic Submission) Date 06/13/2014

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

Approved By EDWARD FERNANDEZ Title PETROLEUM ENGINEER Date 08/06/2014

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.

Office Hobbs *[Signature]*

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.

**\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\***

AUG 11 2014

*[Handwritten mark]*

## **Additional data for EC transaction #249561 that would not fit on the form**

### **32. Additional remarks, continued**

COPC will include an updated allocation with the subsequent report. Furthermore, COPC will update our field study to include an economic summary of the commingled production and submit separately.

Attached supporting documents include:

- Procedure: GB, SA & Yeso Recompletion
- Wellbore Diagram
- C-102 for each zone to be commingled
- BLM ? Downhole Commingling Worksheet
- Email from NM OCD approving Downhole Commingle

Thank you for your time in reviewing this request. Your efforts are appreciated.



## Procedure: GB, SA & Yeso Recompletion

### PLEASE USE NEW DOWNHOLE EQUIPMENT

- 169 joints 2-7/8", 6.5lb/ft, j-55 grade
  - 93 joints sucker rod 7/8" SPCL APP
  - 108 joints sucker rod 3/4" SPCL APP
  - 14 joints sinker bar 1 1/2" Grade C
  - 1 rod insert pump Don nan sand Diverter 2"
1. Before the arrival of the rig, turn off the BPU, well should be dead. If it isn't then kill the well with fresh water.
  2. Before the frac date spot 14 clean 500 bbl. frac tanks
  3. Please make sure project supervisor has casing collar logs on location
  4. Conduct safety meeting with JSA with all personnel and contractors on location
  5. Rig up, Nipple down well head.
  6. Pull out of hole with rods & pump, inspect rods for wear and replace as necessary. send rods to TRC for inspection & pump to Don nan. Inspection report to be sent to [Michael.Sendze@conocophillips.com](mailto:Michael.Sendze@conocophillips.com), contact: 432 238 7537
  7. Nipple up BOP, & pull out of hole with production tubing and lay down production tubing on tubing rack. send tubing to tuboscope for inspection. Inspection report to be sent to [Michael.Sendze@conocophillips.com](mailto:Michael.Sendze@conocophillips.com), contact: 432 238 7537
  8. Pick up & Run in Hole with 145 joints of 2-7/8", 6.5lb/ft, N-80 work string and 10K CBP and set 10K CBP (casing size: 5-1/2" 17 lb/ft L-80) set CBP at 4500 ft, (uppermost paddock perforation is at 5400ft).  
**Test work string going in the hole to max casing pressure of 6500psi check casing collar log to make sure we do not set plug on a collar**
  9. Close pipe rams and Test Bridge plug to 4800 psi surface pressure. If it holds then proceed.
  10. Raise work string to 4400 ft., & spot 1000 gals (24 bbl.) of 15% NE Fe HCL,  
Acid column (3500 ft-4500 ft.)  
Perforations (3765 ft-4090 ft.)
  11. Pull out of hole with work string laying down work string, rig down & release rig
  12. Rig up SLB perforating services, perforate at the below depths. **Perforate at the uppermost perf first**

Perforating gun required: 3-3/8 "SLB power jet HMX 3406 22.7g EHD 0.36"

Ruby Federal 24						
Zone	Top	Bottom	Feet	SPF	Phase angle	shots
SA 7	3765	3785	20	2	60	40
SA 7	3804	3826	22	2	60	44
SA 7	3875	3880	5	2	60	10
SA 9	4027	4037	10	2	60	20
SA 9	4065	4073	8	2	60	16
SA 9	4080	4090	10	2	60	20
						<b>150</b>

Rig down SLB perforating services.

Pump acid with rubber ball sealers using the schedule below (step 13)

**13. Acid treating rate 20 BPM, Acid required 7140 gals**

- pump 10 bbl.(420 gals) of 15% NE Fe HCL,
- 150 bbl. (6300 gals) of 15% NE Fe HCL with 200 rubber ball sealers (1 barrel per perf)
- 10 bbl. (420 gals) of 15% NE Fe HCL. I.e. pump at 20BPM,
- Pump acid till we acid ball out.

14. Pump 100 bbl of fresh water down casing after acid ball out. Record ISIP, SITP 5 mins, 10 mins, 15 mins

15. Run in hole with wire line and 10K CBP set CBP at 3720 ft. then pull out of hole with wire line **check casing collar log to make sure we do not set plug on a collar.**

16. Close pipe rams and test bridge plug to 4800psi surface pressure (6611 psi BHP). If it holds then proceed, if it doesn't reset 10K CBP (check casing collar log to make sure we are not on a collar)

Rig up SLB perforating services and perforate the zones below, **perforate the top perms first**

Perforating gun required: 3-3/8 "SLB power jet HMX 3406 22.7g EHD 0.36"

Ruby Federal 24						
Zone	Top	Bottom	Feet	SPF	Phase angle	shots
GB 4	3487	3494	7	2	60	14
GB 5	3558	3568	10	2	60	20
GB6	3619	3627	8	2	60	16
GB6	3662	3667	5	2	60	10
GB6	3683	3694	11	2	60	22

17. Pull out of hole with perforating guns and rig down SLB perforating services
18. Nipple up 10k Frac stack and Frac Halliburton service provider
  - Set treating lines pop off 4800psi
  - Set pump trips 4500 psi
  - Test surface lines 5500psi
19. Frac the **GB 4, 5 and 6, 3487ft to 3694ft (207ft), ONE STAGE FRAC & Frac down casing**
  - Acidize 3487ft to 3694 ft (82 perforations) with 100 bbls (4200 gals) of 15% NE Fe HCL & 100 ball sealers (1.1 sg)
  - Acid treating rate 20 BPM down 5-1/2" 17 lb/ft casing
  - Pump 10 bbl (420 gals) of 15% FE Ne HCL acid,
  - Pump 80 bbls (3360 gals) of 15% FE Ne HCL, with 100 balls (1 barrel per perf)
  - Then pump 10 bbls (420 gals) of 15% FE Ne HCL
  - Pump 100 bbl of fresh water (20 BPM)
  - Proceed to Frac the GB 4, 5 & 6. 3487ft to 3694ft. Frac treating rate 50BPM down 5-1/2" 17lb/ft casing with the Frac

**Use the schedule below from Halliburton to frac. Frac procedure is attached at the end of this procedure**

**START RESIN COAT ACTIVATOR ON STAGE PRIOR TO RESIN COATED SAND**

Casing (Surface)								
Trt-Stage	Stage Desc.	Flow Path	Fluid Desc.	Rate-Liq+Prop	Clean Vol.	Proppant	Proppant Conc.	Prop. Mass
1-1	Load Well	IN	Treated Water	5	500		0	0
1-2	Acid Ball Out	IN	15% Ferchek SC Acid (0.3%)	20	5000		0	0
1-3	Displacement	IN	Treated Water	20	6500		0	0
1-4	Pad	IN	Delta Frac 140 - R (17)	40	4000		0	0
1-5	Proppant Laden Fluid	IN	Delta Frac 140 - R (17)	40	6000	Common White-100 Mesh, SSA-2	0.25	2000
1-6	Pad	IN	Delta Frac 140 - R (17)	40	3000		0	0
1-7	Proppant Laden Fluid	IN	Delta Frac 140 - R (17)	40	12000	Premium White-20/40	0.5	6000
1-8	Proppant Laden Fluid	IN	Delta Frac 140 - R (17)	40	11000	Premium White-20/40	1	11000
1-9	Proppant Laden Fluid	IN	Delta Frac 140 - R (17)	40	10000	Premium White-20/40	2	20000
1-10	Proppant Laden Fluid	IN	Delta Frac 140 - R (17)	40	9000	Premium White-20/40	3	27000
1-11	Proppant Laden Fluid	IN	Delta Frac 140 - R (17)	40	9000	Premium White-20/40	4	36000
1-12	Proppant Laden Fluid	IN	Delta Frac 140 - R (17)	40	5200	Premium White-20/40	5	26000
1-13	Proppant Laden Fluid	IN	Delta Frac 140 - R (17)	40	6400	CRC-20/40	5	32000
1-14	Flush	IN	Water Frac G -R 15)	40	3400		0	0
<b>Totals</b>					<b>93000</b>			<b>160000</b>

20. Record ISIP, SITP 5 min, 10 min and 15 mins in well view
21. Rig down frac service provider (Halliburton).
22. Let resin coated sand (CRC-20/40) sit for 24 hours till we flow back
23. Flow back the well till its dead
24. Move in with Rig & Rig up
25. Pick up & Run in hole with 120 joints of 2-7/8", 6.5 lb/ft, J-55 work string, 4-3/4" drill bit, (6) 28 lb/ft drill collars to first plug at 3720ft & drill out plugs below with 10 ppg.

Plug Location	depth
Between GB & SA7	3720 ft
Between SA7 & yeso	5000 ft

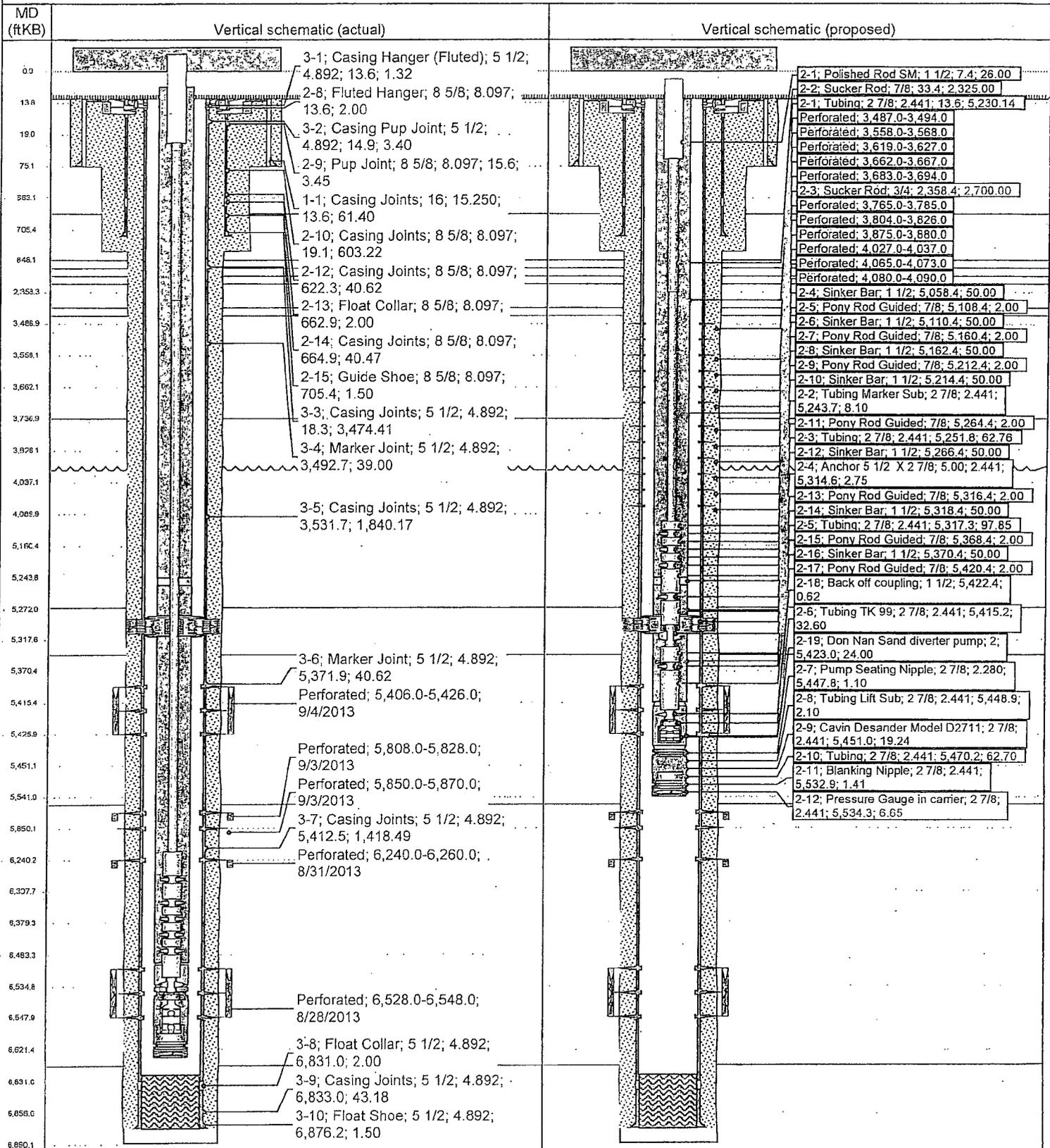
26. Once on bottom circulate on bottom for 2 hours. Watch and report in well view any sand
27. Run in hole with 2-7/8 J-55 new production tubing & static pressure gauges, test production tubing to 5000 psi, discard & clearly label any bad tubing and proceed with good tubing. Pump 5 gal of corrosion inhibitor (**champion-Corton R-2525; SG 0.91**)
28. Nipple down BOP, Run in hole with new Rods and Pump. (see pre-pull attached on the next page)

29. Encase of any problems with Sparktek gauge contact Eby Bothe (432)-580-8200
30. Turn on Pump, Test pump action, wait for tubing to pressure up then shut down pump. **Rig down & Release Rig**
31. Shut in well for 48 hours.
32. Start well run well
33. Place well on test & please obtain static & flowing fluid level put data in advocet
34. ConocoPhillips Maintenance Lead Mario Corral (575) 704-2209

Most Recent Job

Job Category	Primary Job Type	Secondary Job Type	Actual Start Date	End Date
COMPLETIONS	INITIAL COMPLETION		8/29/2013	9/13/2013

VERTICAL - Original Hole, 5/30/2014 12:14:01 PM





District I  
1625 N. Francis Dr., Hobbs, NM 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720  
District II  
811 S. First St., Artesia, NM 88210  
Phone: (575) 743-1283 Fax: (575) 748-9720  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

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 August 1, 2011

Submit one copy to appropriate

District Office

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-025-41205		<sup>2</sup> Pool Code 44500		<sup>3</sup> Pool Name Maljamar; Yeso West	
<sup>4</sup> Property Code 38653		<sup>5</sup> Property Name Ruby Federal			<sup>6</sup> Well Number 24
<sup>7</sup> OGRID No. 217817		<sup>8</sup> Operator Name ConocoPhillips Company			<sup>9</sup> Elevation 3952'

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	18	17S	32E		2310'	South	1650'	West	Lea

<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. DHC-4681
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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, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature: <u>Susan B. Maunder</u> Date: <u>5/30/14</u> Printed Name: Susan B. Maunder E-mail Address: Susan.B.Maunder@conocophillips.com
	<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

**Maunder, Susan B**

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**From:** McMillan, Michael, EMNRD <Michael.McMillan@state.nm.us>  
**Sent:** Thursday, June 12, 2014 4:02 PM  
**To:** Maunder, Susan B  
**Cc:** Joseph Galluzzi ; Lisa Lemon ; Goetze, Phillip, EMNRD; Ezeanyim, Richard, EMNRD; Brown, Maxey G, EMNRD; Kautz, Paul, EMNRD; Mull, Donna, EMNRD  
**Subject:** [EXTERNAL]NSL 6528-A and DHC-4680 ConocoPhillips Ruby Federal Well No. 2 Lea Co. API 30-025-40394 DHC-4681 ConocoPhillips Ruby Federal Well No. 24 30-025-40394

The following permit has been issued and will soon be scanned along with the application and will be available on the Division's web site.

NSL 6528-A and DHC-4680 ConocoPhillips Ruby Federal Well No. 2 (Unit O Sec. 17 17S 32E) Lea Co. 30-025-40394  
DHC-4681 ConocoPhillips Ruby Federal Well No. 24 (Unit K Sec. 18 17S 32E) Lea Co. 30-025-40394

**Michael A. McMillan**

Engineering and Geological Services Bureau, Oil Conservation Division  
1220 South St. Francis Dr., Santa Fe NM 87505  
O: 505.476.3448 F. 505.476.3462

## BLM - Downhole Commingling Worksheet

<b>Operator: ConocoPhillips Company</b>				
<b>Lease/Well Name/Location: NMLC029405B/ Ruby Federal #24/ UL K, Sec. 18, 17S, 32E</b>				
Data	Formation One	Formation Two	Formation Three	Estimated Combined Production
Pool Name	Maljamar;Grayburg-San Andres	NA	Maljamar; Yeso West	--
Pool Code	38653	--	44500	--
State Form C-102 with dedicated acres provided	Yes	--	Yes	--
Formation Name	Grayburg-San Andres	--	Yeso	--
Top & Bottom of Pay Section (perforated or open-hole interval)	3487 – 4090' perforated	--	5406 – 6548' perforated	--
Method of production	Artificial Lift	--	Artificial Lift	--
Bottom Hole Pressure (Pinitial, reservoir & Pbottom hole, current)	Pi,r = 1733 Pbh = 800 psi	--	Pi,r = 2600 Pbh = 1200 psi	--
Reservoir Drive mechanism	Combination (Solution gas & water drive)	--	Combination (Solution gas & water drive)	--
Oil gravity and/or BTU	39 1243	--	38 1306	38.4 1286
Average Sulphur Content (Wt%)	0.7069	--	0.6261	0.658
Oil Sample Analysis provided	See Field Study	--	See Field Study	--
Gas Analysis Provided	See Field Study	--	See Field Study	--
Produced Water Analysis provided	See Field Study	--	See Field Study	--
H2S present	180 ppm	--	1400 ppm	1107 ppm* (Results show most of the gas production from Yeso; also have a larger percentage of the total production)
Producing, Shut-in or New Zone	New	--	Producing	--
Date and Oil/Gas/Water rates of last production	Date: estimate 19 bopd/35 Mcfd/190 bwpd	--	Date:04/24/14 29 bopd /75 Mcfd/ 132 bwpd	Oil/Gas/Water 48 / 110 / 322
Average decline% (provide back up data)	See Field Study	--	See Field Study	--
Fixed Allocation Percentage	Oil:40% Gas:32%	--	Oil:60% Gas:68%	--
Remarks: *For H2S calculation used following numbers: GBSA production share (0.4), GOR (1.8 Mcf/Stb), H2S (180 ppm) & Yeso production share (0.6), GOR (4.5), H2S (1400 ppm)				
Operator Signature:				
Date:				

Attached Supporting Documents:

State Form C-102 with dedicated Acres Provided

Oil Sample Analysis provided (must be current)

Gas Analysis provided (must be current)

Produced Water Analysis provided (must be current)

Any additional supporting data (i.e. offset well production and decline curves, etc)

## Conditions of Approval

Ruby Federal 24

30-025-41205

ConocoPhillips

August 6, 2014

1. Operator procedure approved as written.
2. Surface disturbance beyond the existing pad must have prior approval.
3. Closed loop system required.
4. A minimum of a 2000 (2M) BOP to be used. All blowout preventer (BOP) and related equipment (BOPE) shall comply with reasonable well control requirements. A two ram system with a blind ram and a pipe ram designed for the size of the work string shall be adequate. Tapered work strings will require an additional pipe ram. The manifold shall comply with Onshore Oil and Gas Order #2 Attachment I (2M Diagrams of Choke Manifold Equipment). The accumulator system shall have an immediately available power source to close the rams and retain 200 psi above pre-charge. The pre-charge test shall follow requirements in Onshore Order #2.
5. Subsequent sundry and Completion report with well test and wellbore schematic required.
6. Work to be completed in 90 days.

EGF 080614