

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0135
Expires: November 30, 2000

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 reverse side

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

ConocoPhillips Company

3a. Address

5525 Highway 64, NBU 3004, Farmington, NM 87401

3b. Phone No. (include area code)

505-599-3454

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

Unit D (NWNW), 855 FNL & 1010 FWL
Section 1, T30N, R6W

5. Lease Serial No.

NMSF078401

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.

SJ 31-6 Unit #202A

9. API Well No.

30-039-27467

10. Field and Pool, or Exploratory Area

Basin Fruitland Coal

11. County or Parish, State

Rio Arriba, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☒ Notice of Intent
☐ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

- | | | | |
|--------------------------------------------------|-------------------------------------------|----------------------------------------------------|-----------------------------------------|
| <input type="checkbox"/> Acidize | <input type="checkbox"/> Deepen | <input type="checkbox"/> Production (Start/Resume) | <input type="checkbox"/> Water Shut-Off |
| <input type="checkbox"/> Alter Casing | <input type="checkbox"/> Fracture Treat | <input type="checkbox"/> Reclamation | <input type="checkbox"/> Well Integrity |
| <input type="checkbox"/> Casing Repair | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete | <input type="checkbox"/> Other |
| <input checked="" type="checkbox"/> Change Plans | <input type="checkbox"/> Plug and Abandon | <input type="checkbox"/> Temporarily Abandon | <u>Change in original</u> |
| <input type="checkbox"/> Convert to Injection | <input type="checkbox"/> Plug Back | <input type="checkbox"/> Water Disposal | <u>APD</u> |

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 shall 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 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 final site is ready for final inspection.)

Plans have changed to our drilling program and therefore we need to submit a change in the drilling procedure for this well. We will now be topsetting and either underreaming and/or cavitating this well. After the well has been cavitated a 5-1/2" liner will be run and perforated. A new Drilling Prognosis with more detail is attached.

RECEIVED
2ND AUG - 6 PM 3:07
070 Farmington, NM

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

Patsy Clugston

Title

SHEAR Administrative Assistant

Date

8-5-03

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

/s/ Jim Lovato

Title

Office

Date

AUG 13 2003

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, makes 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.

CONOCOPHILLIPS COMPANY

WELL NAME: San Juan 31-6 Unit #202A

DRILLING PROGNOSIS

1. Location of Proposed Well: Unit D (NWNW), 855' FNL & 1010' FWL
Section 1, T30, R6W
2. Unprepared Ground Elevation: @ 6420'
3. The geological name of the surface formation is San Jose.
4. Type of drilling tools will be rotary.
5. Proposed drilling depth is 3313'.
6. The estimated tops of important geologic markers are as follows:

<u>Nacimiento - 1283'</u>	<u>Base of Coal - 3243'</u>
<u>Ojo Alamo - 2447'</u>	<u>Intermediate casing - 3073'</u>
<u>Kirtland - 2597'</u>	<u>Picture Cliffs - 3396'</u>
<u>Fruitland - 3023'</u>	<u>T. D. - 3313'</u>

TD includes 70' of sump/rathole and ConocoPhillips will comply with the BLM/OCD's Conditions of Approval for the proposed sump/rathole in this non-producing Pictured Cliffs Formation.

7. The estimated depths at which anticipated water, oil, gas or other mineral bearing formations are expected to be encountered are as follows:

Water:	<u>Ojo Alamo - 2447' - 2597'</u>
Oil:	<u>none</u>
Gas:	<u>Fruitland Coal - 3023' - 3243'</u>
Gas & Water:	<u>Fruitland Coal - 3023' - 3243'</u>

8. The proposed casing program is as follows:

Surface String: 9-5/8", 32.3#, H-40 @ 200' *

Intermediate String: 7", 20#, J/K-55 @ 3073'

Production Liner: 5-1/2", 15.5# J/K-55 @ 3053' - 3313' (see details below)

* The surface casing will be set at a minimum of 200', but could be set deeper if required to maintain hole stability.

9. Cement Program:

Surface String: 150.2 sx Class G cement with 2% bwoc CaCl₂ (S001), 0.25#/sx
Cello-Flake (D029) 1.16 cuft/sx yield = 174.27 cf

9. Cement program: (continued from Page 1)

Intermediate String:

Lead Cement: 384 sx Class G w/3% D079 (Extender) 0.25#/sx D029 (Cellephone flakes, + 0.2% D046 Flocele (All purpose antifoam agent) mixed at 11.7 ppg and yield of 2.61 cuft/sx = 1001.85 cf.

Tail: 96 sx – 50/50/G/POZ cement w/2% D020 (Bentonite Extender), 2% S001 (CaCl₂), 5#/sx D024 (Gilsonite), 1/4#/sx D029 (Celephane flakes) & 2% D046 (all purpose antifoam agent) @ a weight of 13.5 ppg and yield of 1.27 cuft/sx = 122.29 cf.

Note: ConocoPhillips Company continually works to improve the cement slurries on our wells. Our Cementing Service Companies are currently trying to improve what we are using now and before we would use a new cement program it would have to have stronger properties than we are currently using.

Centralizer Program:

Surface: Total four (4) - 10' above shoe and top of 2nd, 3rd, & 4th jts.

Intermediate: Total seven (7) - 10' above shoe and top of 1st, 2nd, 4th, 6th, 8th, & 1st jt. into shoe.

Turbulators: Total three (3) - one at 1st jt below Ojo Alamo and next 2 jts up.

Liner : A 5 1/2" 15.5# liner will be run in the open hole without being cemented.

Completion - Depending on well conditions,

- Well will either be cavitated and a 5-1/2" liner will be run without being cemented, or
 - Well will be underreamed, tubing will be set and cavitated at a later date.
10. The minimum specifications for pressure control equipment which are to be used, a schematic diagram thereof showing sizes, pressure ratings (or) API series and the testing procedure and testing frequency are enclosed within the APD packet.
11. Drilling Mud Prognosis: Surface - spud mud on surface casing.
Intermediate - fresh water w/polymer sweeps. Bentonite as required for viscosity.
Below Intermediate - air drilled.
12. The testing, logging, and coring programs are as follows:
D.S.T.s or cores:
Logs: Mud logs only

13. Anticipated no abnormal pressures or temperatures to be encountered or any other potential hazards such as Hydrogen Sulfide Gas. Low risk H₂S equipment will be used.

Estimated Bottomhole pressures: Fruitland Coal - +/- 400 psi

14. The anticipated starting date is sometime around September 1, 2003 with duration of drilling operations for approximately 30 days thereafter.

2003drill\ 316#202A newest drill prog-cav.doc

San Juan 31-6 Unit #202A

SURFACE CASING :

Drill Bit Diameter	12.25 "	
Casing Outside Diameter	9.625 "	9.001
Casing Weight	32.3 ppf	
Casing Grade	H-40	
Shoe Depth	200 '	40 '
Cement Yield	1.16 cuft/sk	
Excess Cement	150 %	
Casing Capacity	0.0787 bbl/ft	0.4419 cuft/ft
Hole / Casing Annulus Capacity	0.0558 bbl/ft	0.3132 cuft/ft
Cement Required	150.2 sx	

SHOE 200 ', 9.625 ", 32.3 ppf, H-40

INTERMEDIATE CASING :

Drill Bit Diameter	8.75 "	
Casing Outside Diameter	7 "	6.456
Casing Weight	20 ppf	
Casing Grade	J-55	
Shoe Depth	3073 '	
Lead Cement Yield	2.61 cuft/sk	
Lead Cement Excess	150 %	
Tail Cement Length	300 '	42 '
Tail Cement Yield	1.27 cuft/sk	
Tail Cement Excess	150 %	
Casing Capacity	0.0405 bbl/ft	0.2273 cuft/ft
Casing / Casing Annulus Capacity	0.0311 bbl/ft	0.1746 cuft/ft
Hole / Casing Annulus Capacity	0.0268 bbl/ft	0.1503 cuft/ft
Lead Cement Required	383.9 sx	
Tail Cement Required	96.3 sx	

LINER TOP 3053 '

SHOE 3073 ', 7 ", 20 ppf, J-55

LINER BOTTOM 3313 ' (Uncemented)

Casing Design Worksheet - Fruitland Coal Wells

Surface Casing

Size	Grade	#/foot	Collapse	Yield	Tensile	Coupling	Length	Weight
9-5/8"	H-40	32.3	1400	2270	254	ST&C	200	6,460

Intermediate Casing

Size	Grade	#/foot	Collapse	Yield	Tensile	Coupling	Length	Weight
7"	J-55	20	2270	3740	254	ST&C	3,073	61,460
								-
								-
								-
Total Weight								61,460

Production Casing

Size	Grade	#/foot	Collapse	Yield	Tensile	Coupling	Length	Weight
5-1/2"	J-55	15.5	4040	4810	202	ST&C	260	4,030
								-
								-
								-
Total Weight								4,030

Casing Parameters- FC

Tensile

$$SF_t = \text{Tensile} / ; \text{ Must Exceed 1.8 for Dry or 1.6 for Bouyant}$$

9-5/8"	Surf.	254000 /	6,460	=	39.3
7"	Int.	254000 /	61,460	=	4.1
5-1/2"	Prod.	202000 /	4,030	=	50.1

Collapse

$$SF_c = \text{Collapse} / (\text{Maximum Formation Pressure}) \text{ or } (\text{Mud Gradient} \times \text{T. V. D.}); \text{ Must Exceed 1.125}$$

9-5/8"	Surf.	1400 /	87	=	16.2
7"	Int.	2270 /	1,438	=	1.6
5-1/2"	Prod.	4040 /	400	=	10.1

Burst

$$SF_b = \text{Burst} / (\text{Maximum Foramtion Pressure}) \text{ or } (\text{Mud Gradient} \times \text{T. V.D.}); \text{ Must Exceed 1.0}$$

9-5/8"	Surf.	2270 /	400	=	5.7
7"	Int.	3740 /	400	=	9.4
5-1/2"	Prod.	4810 /	400	=	12.0

B.O.P. Requirement - (Maximum Formation Pore Pressue) or (Mud Weight X 0.05195 x T. V. D.) - 0.22 X T.V.D.

400

Excess Cement Volumes

Surface	100%
Intermediate	150%
Production	N.A.

Note: Cement volume calculations are stored in the computer log.

Blowout Preventer Equipment (BOPE)

ABHP = 400 PSI; TVD = 3,313 Feet; Mud Weight = 8.34

Operator's Gradient (ABHP / TVD) = 0.121 PSI/Ft is / ~~is not~~ appropriate and does / ~~does not~~ coincide with the Anticipated Mud Weight for each drilled interval.
The most credible ABHP is 0.121 PSI/Ft.

Mud Weight x 0.05195 = Gradient

$$\underline{8.34} \times 0.05195 = \underline{0.433}$$

ABHP - (0.22 x TVD) = ASP

$$\underline{400} - (0.22 \times \underline{3313}) = \underline{-329} \text{ psi}$$

Operator's proposed BOPE of 2 M exceeds / ~~does not exceed~~ the ASP and is therefore adequate / ~~not adequate~~.

Note ASP - Anticipated Surface Pressure

ABHP - Anticipated Bottom Hole Pressure

$$(\text{Decmin}) = \text{ASP} / (\text{GR} - .22)$$