

UNITED STATES  
DEPARTMENT OF INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED

MAY 18 2010

FORM APPROVED  
Budget Bureau No. 1004-0135

SUNDRY NOTICE AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir. Use "APPLICATION TO DRILL" for permit for such proposals

Lease Designation and Serial No.  
SF-~~07960~~ 078766

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE

7. If Unit or CA, Agreement Designation  
8920005870

1. Type of Well  
Oil Well ☒ Gas Well ☐ Other ☐

8. Well Name and No.  
Rosa Unit #18

2. Name of Operator  
WILLIAMS PRODUCTION COMPANY

9. API Well No.  
30-039-~~07690~~ 07960

3. Address and Telephone No.  
PO BOX 3102 MS 25-4, TULSA, OK 74101 (918) 573-3046

10. Field and Pool, or Exploratory Area  
PICTURED CLIFFS/  
BLANCO MESAVERDE

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
1470' FNL, 800' FEL, SE/4 NE/4, SEC 22, T31N, R06W

11. County or Parish, State  
RIO ARRIBA, NEW MEXICO

CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

TYPE OF ACTION

☒ Notice of Intent

☐ Subsequent Report

☐ Final Abandonment

Abandonment

Recompletion

Plugging Back

Casing Repair

Altering Casing

☒ Other Commingling

Change of Plans

New Construction

Non-Routine Fracturing

Water Shut-Off

Conversion to Injection

Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

RCVD MAY 17 '10

OIL CONS. DIV.

DIST. 3

- i. Pre-approved Pool Division Order R-12991.
- ii. Pools to be commingled: Blanco MV 72319, Pictured Cliffs 96175.
- iii. Perforated intervals: Blanco MV 5272' - 5678', Pictured Cliffs 3088' - 3171'.
- iv. Fixed percentage allocation based upon production data of 12% Blanco MV and 88% Pictured Cliffs. See attached information for a detailed summary page from the completion profile analysis.
- v. Commingling will not reduce the value of reserves.
- vi. Notification of working, royalty, and overriding royalty interest owners; no notice is required per R-12991.
- vii. The BLM has been notified and has approved the work on sundry notice form 3160-5.

Please see attached for commingling procedure:

DHC 3417A2

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

Signed

Rachel Lippert

Title Engineering Technician II

Date May 11, 2010

(This space for Federal or State office use)

Approved by

Joe Hewitt

Title

Geo

Date

5-14-10

Conditions of approval, if any:

NMOCD



EXPLORATION & PRODUCTION

## COMMUNICATION REPAIR & COMINGLING PROCEDURE

ROSA #18  
T31N, R6W, SECT. 22  
ELEVATION: 6275' GR  
PBTD: 5740' MD

### WELLBORE STATUS:

MV 1-1/2", 2.9 #/FT EUE, To 5665' MD

PC 1-1/2", 2.9 #/FT EUE, To 3153' MD

5" BAKER MODEL D PACKER @ 4000' MD

### OBJECTIVE: Remove failed packer and commingle MV and PC

1. Pull Pictured Cliffs tubing
2. Pull Mesa Verde tubing
3. Remove Production packer
4. Clean out to PBTD
5. Acid stimulate each formation if needed.
6. Run completion profiler for allocation purposes.
7. Complete with single string 2-3/8" tubing, landed @ 5600', below MV perfs
8. Install plunger lift system.
9. Remove one set of wellhead facilities
10. Return to production as PV/MV commingle

### PRIOR TO PRIMARY JOB

- 1) Test rig anchors.
- 2) Verify location is OK for rig operations.
- 3) Ensure JSA, ECP's and lockout procedures are in place for the flowline and other energized piping or equipment.
- 4) Acquire 6000' of 2-3/8" N-80 or stronger work string.
- 5) Acquire ~5700' of 2-3/8", EUE, 8rd, 4.7 #/ft J-55 tubing.
- 6) Acquire wellhead and convert from dual tubing string to a single, 2-3/8" tubing string.
- 7) Acquire 2-3/8", I.D. Type X or XN type nipple.

- 8) **KCL** on location to treat kill water as needed.

### **SAFETY NOTICE**

PERSONNEL SAFETY IS THE NUMBER ONE JOB.

NO EXCEPTIONS!!!

**PLEASE FOLLOW APPROPRIATE WILLIAMS CONTRACTOR  
PROTOCOLS FOR THIS JOB PLAN**

Please see your Williams Business Representative if you have any questions; Contractor protocols can be located in the Williams E&P Contractor Guide

### **PRIMARY JOB**

**Note:** Safety meetings shall be held each morning before work and subsequent "tailgate" safety meetings are to be held during the day when operation objectives shift in nature and intent (i.e. beginning/ending fishing operations, squeeze jobs, rigging down, perforating, etc.) Please ensure these are documented per section 2.2.7 of the Williams E&P Contractor Guide

1. MI and spot equipment to include fluid pumps and tanks.
2. MIRU.
3. ND/NU killing well with KCL water as necessary
4. Test the BOP's to 2500 psig minimum. If they fail, then rebuild and retest. If they cannot pass tests **DO NOT PROCEED** and notify Production Engineer.
5. Pick up on long string (MV) to determine if the long string will pull.
6. If long string will release, then POOH with short string (PC) and proceed to step # 7. If the long string will not release, proceed with sub-steps 6.1 through 6.3 below:
  - 6.1. POOH with short string one or two joints to confirm ability to move.
  - 6.2. Pick up additional joints of 1-1/2" pipe and wash to top of packer at 4000' using heavy air mist. Wash as necessary until returns clean up to approximately 1/4 cup of sand in 5 gallons of water returns.
  - 6.3. After returns clean up, POOH with pipe laying down string.
7. Spear or screw in and POOH with 1-1/2" 2.9 #/ft long string (MV) string using straight pull to pull out of Baker Model D packer seal assembly up to 40,000 #'s.
8. POOH with lay down tubing 1-1/2" 2.9# J-55 and seal assembly.
9. NU additional pipe ram for work string or replace pipe ram with annular preventer.
10. Pick up work string.

11. Pick up Baker Model D packer millover & pulling tool, using DC's and assembly as necessary and RIH on work string to mill over Baker Model D packer @ 4000' MD and RIH on work string. If work string not inspected prior to work do not exceed 70% of joint strength of the work string pipe when pulling.
12. Millover and attempt to pluck Baker Model D packer at 4000' MD. If using 4.7 #/ft work string, weight of dry string above packer is 18.8k #s. If using 6.5 #/ft work string, dry string weight will be 26k #'s. When attempting to pull packer and tail pipe determine work string weight and do not pull more than 70% of joint strength.
13. POOH with packer and lay down work string, tools and packer.
14. RIH w/ work string.
15. Clean out to 5740' PBTD using a bit, scraper, and air unit package. Acid stimulate if needed.
16. TOOH w/ work string.
17. TIH with 2-3/8" production string to 2940' (+/- 150 above top PC perf @ 3088').
18. MIRU slickline
19. TIH w/ gauge ring/dummy assembly w/ to PBTD.
  - 19.1. Ensure slickline unit can run @ 30 to 150 fpm
20. Allow flow to stabilize overnight.
21. RIH w/ completion profiler and log the production intervals per ProTechnics procedures.
22. TIH w/ completion profiler and **record final wellhead pressure.**
23. TIH w/ blanking plug and set a blanking plug in the F-nipple to isolate tubing from well.
24. TOH w/ slick line and bleed tubing pressure down to zero.
25. RD slick line

**Note:** Only use pipe dope on the pins. Do not dope the couplings.

26. RIH w/ tubing and set @ 5600' w/ seat nipple & standing valve, testing tubing to 1000 psi every 900'. Report leaks and replace.

**Note:** This well should be dead and the BOP's shall be closed and locked at the end of daily operations.

27. Ensure tubing is not plugged prior to releasing the rig

28. N/D BOP's and N/U wellhead.

29. Return well to production.

30. R/D, move off location.

31. Return well to production.

# Completion Profile Analysis



## Results

The following table summarizes the production from each producing interval.

GAS / WATER PRODUCTION PROFILE						
Flow Rates Reported at STP						
Zone Intervals	Q-Water	Qp-Water	Percent of Total	Q-Gas	Qp-Gas	Percent of Total
feet	BFPD	BFPD		MCFD	MCFD	
Surface to 3088	10 bpd		100 %	130 Mcf/d		100 %
Pictured Cliffs			67 %			88 %
3088 to 3101	10 bpd	3 bpd	30 %	130 Mcf/d	30 Mcf/d	23 %
3101 to 3112	7 bpd	0 bpd	2 %	101 Mcf/d	5 Mcf/d	4 %
3115 to 3124	7 bpd	0 bpd	3 %	96 Mcf/d	11 Mcf/d	8 %
3130 to 3142	7 bpd	0 bpd	1 %	85 Mcf/d	3 Mcf/d	2 %
3142 to 3152	7 bpd	3 bpd	24 %	83 Mcf/d	45 Mcf/d	34 %
3159 to 3171	4 bpd	1 bpd	7 %	38 Mcf/d	23 Mcf/d	17 %
Mesaverde			33 %			12 %
5272 to 5288	3 bpd	0 bpd	3 %	15 Mcf/d	0 Mcf/d	0 %
5316 to 5330	3 bpd	0 bpd	5 %	15 Mcf/d	2 Mcf/d	2 %
5342 to 5350	3 bpd	1 bpd	11 %	12 Mcf/d	4 Mcf/d	3 %
5352 to 5368	1 bpd	0 bpd	3 %	8 Mcf/d	1 Mcf/d	1 %
5402 to 5408	1 bpd	0 bpd	1 %	8 Mcf/d	0 Mcf/d	0 %
5454 to 5458	1 bpd	0 bpd	1 %	7 Mcf/d	2 Mcf/d	2 %
5500 to 5504	1 bpd	0 bpd	2 %	5 Mcf/d	1 Mcf/d	1 %
5550 to 5560	1 bpd	0 bpd	3 %	4 Mcf/d	1 Mcf/d	1 %
5564 to 5618	0 bpd	0 bpd	1 %	3 Mcf/d	0 Mcf/d	0 %
5636 to 5648	0 bpd	0 bpd	1 %	2 Mcf/d	0 Mcf/d	0 %
5656 to 5660	0 bpd	0 bpd	2 %	2 Mcf/d	1 Mcf/d	1 %
5668 to 5678	0 bpd	0 bpd	0 %	1 Mcf/d	1 Mcf/d	1 %

## Analysis Summary

1. The average daily water rate was reported to be 36 bpd. Based on the density response above the fluid level (4,950 ft) in the casing and tubing the well appeared to be make less than 36 bpd downhole.

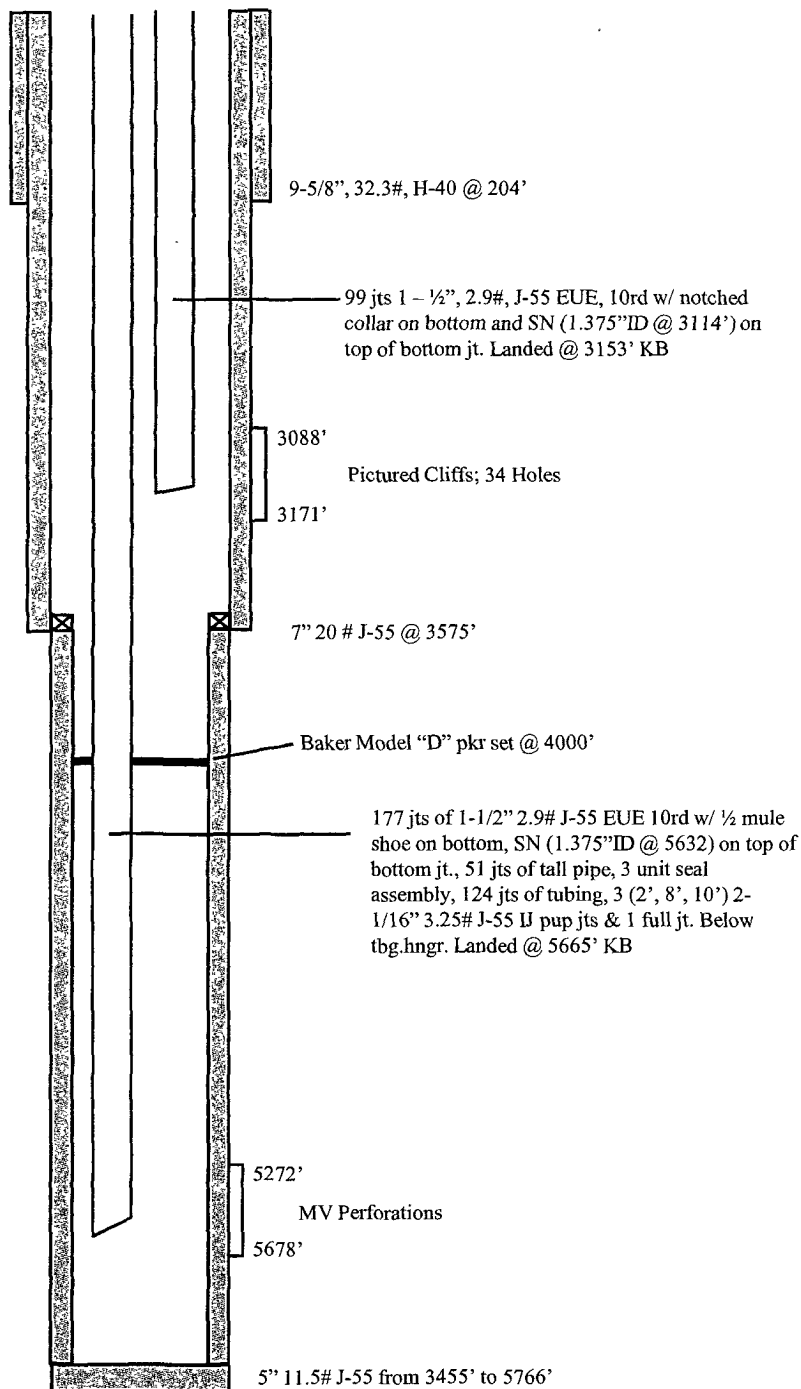
# WELLBORE DIAGRAM

## ROSA UNIT #18 MV

**Location:** SE/4 NE/4 Sec. 22  
T31N, R06W, Rio Arriba Co., NM

**Elevation:** 6275' GR  
KB = 12'

<i>Tops</i>	<i>Depth</i>
Nacimiento	N/A
Ojo Alamo	2310'
Kirtland	2411'
Fruitland	2908'
Pictured Cliffs	3082'
Lewis	3475'
Cliff House	5210'
Menefee	5307'
Point Lookout	5544'



### STIMULATION

**PC:** 3088' to 3171'

110,000# 20 / 40 in 12,180 gals of 30# X-Link gel in a 70 quality foam.

### MV:

1. 50,000# of sand in 75,000 gals of water. Dropped 193 balls
2. Re-frac: 151,200 gals of water & 625 balls.

Hole Size	Casing	Cement	Volume	Top Of CMT
13 - 3/4"	9-5/8", 32.3#	175 sx	207 cu. ft.	surface
8 - 3/4"	7", 20#	200sx	347 cu. ft.	2255'(calc)
6 - 1/4"	5", 11#	150 sx	177 cu. ft.	4615'(calc)