Form 3160-5 (June 1990)

## UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

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2012 100 17 AM ||: || SUNDRY NOTICES AND REPORTS ON WELLS 6. If Indian, Allottee or Tribe Name Do not use this form for proposals to drill or to deepen or reentry to a different reservoir. igiqa, NM Use "APPLICATION FOR PERMIT-" for such proposals? 7. If Unit or CA, Agreement Designation SUBMIT IN TRIPLICATE 1. Type of Well Gas 8. Well Name and No. Other Well Zachry Federal No. 1 2. Name of Operator Roddy Production Company, Inc. 30 - 045 - 07657 3. Address and Telephone No. P. O. Box 2221, Farmington, NM, 87499 (505)325-5750 10. Field and Pool, or Exploratory Area 4. Location of Well (Footage, Sec., T., R., M., or Survey Description Basin Dakota 1850' FSL - 890' FWL, Section 34, T29N, R10W, NMPM 11. County or Parish, State San Juan Co., New Mexico 12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION TYPE OF ACTION Abandonment Change of Plans Notice of Intent Recompletion **New Construction** Plugging Back Non-Routine Fracturing Subsequent Report Casing Repair Water Shut-Off **Altering Casing** Conversion to Injection Final Abandonment Notice Dispose Water 13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinennt 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.) Roddy Production Company, Inc. proposes to determine the source of the oil, gas and water flow coming from the bradenhead of this well. The bradenhead test indicates it is not coming from a leak in the production casing. Roddy will pull the tubing, set a bridge plug above the Dakota perfs, test the production casing to 1000 psig and then run a CBL from 1700' to the surface. Future work will be determined from the results of the CBL. The most likely scenario we foresee is perforating three squeeze holes fifty feet below the base of the Ojo Alamo in the 5 1/2" production casing. We will establish circulation to the surface through the bradenhead valve and then circulate an 8.5 - 9.5 ppg mud through the annular space to insure the flow out the bradenhead is nil. We will then pump an adequate cement volume down the casing to place a cement plug in the annulus from 202' to 990' and leave one hundred feet of cement inside the casing. The cement will be allowed to cure for a minimum of twelve hours and no flow out of the bradenhead valve will be ascertained prior to drilling out the interior plug. This will isolate the Ojo Alamo from any possible hydrocarbon zones below. The cement will be drilled out and the squeeze holes will be tested to 1000 psig to insure casing integrity. The bridge plug will be retreived and the well returned to production. The BLM and NMOCD will be advised during each of the evaluation steps to insure the correct curative action is used. A wellbore diagram is attached for your reference. Please note that the calculated cement tops are an estimate since the actual hole size is not known. We feel confident in the calculation for the lower stage since there is a caliper log available for that section. There are only strips of caliper log pulled through the upper hole 14. I hereby certify the foregoing is true and correct Title Agent Date December 16, 2002 (This space for Federal or State office use) DEC 3 0 2002 Approved by Date Conditions of approval, if any:

# Roddy Production Company, Inc. Zachry Federal No. 1 Workover Procedure

**Location:** 1850' FSL – 890' FWL, Section 34, T29N, R10W, NMPM

Lat / Long:

**Elevations:** 5707' GL; 5717' KB. KB = 10 feet

Lease Type/ Serial No.: Federal, SF080724A

**Producing Pool:** Basin Dakota

**Spud Date:** January 2, 1960 **Completion Date:** March 21, 1960

<u>Total Depth:</u> 6625' <u>PBTD:</u> 6586'

## **Formation Tops:**

Ojo Alamo	775'
Kirtland	940'
Farmington	1036'
Fruitland	1673'
Fruitland Coal	1790'
Pictured Cliffs	1906'
Lewis	2014'
Chacra	2903'
Cliff House	3575'
Menefee	3610'
Pt. Lookout	4232'
Mancos	4530'
Gallup	5448'
Lower Mancos	6015'
Greenhorn	6220'
Graneros	6341'
Dakota	6408'
Morrison	6570'
Total Depth	6625'

#### Tubulars:

10.750" 32.75 ppf H-40 casing set in 12.250"(?) OH at 302' KB. Cemented with 300 sacks (354.0 cf) regular cement with 2% CaCl<sub>2</sub>. Calculated TOC – surface.

5.500" 17.0 ppf J-55(?) casing set in 9.000"(?) OH at 6622' KB. DV tool at 2000' KB. Cement Stage One with 200 sacks (286.0 cf) 50/50 Pozmix with 4% gel followed by 200 sacks (252.0 cf) of 50/50 Pozmix with 2% gel. Calculated TOC(@ 70% fill up) – 5261'. Cement Stage Two with 150 sacks(189.0 cf) of

50/50 Pozmix with 2% gel. Calculated TOC(@70% fill up) -1522'.DV tool did not close. WOC 48 hours. Squeezed DV with 61 sacks to get casing test of 3500 psi.

2.375" 4.7 ppf J-55(?) tubing set at 6514' KB. Approximately 207 joints.

## Completion:

Perforated 6480 – 6524' with 2 JSPF. Acidized with 500 gals 15% MCA. Frac with 21,500 gals 1% CaCl<sub>2</sub> water and 21,500 # sand. Sanded off.

Perforated 6340 – 6350' and 6408 – 6450'. Acidize with 500 gals 15% MCA. Frac with 40,000 gals 1% CaCl<sub>2</sub> water and 45,000 # sand.

Workover History: None. 2" plunger lift installed in well

## Workover Procedure:

- 1. Set and test guyline anchors.
- 2. Move in and rig up service unit. Set flowback tank and lay bleed off line off casing valve to flowback tank. Blow casing down.
- 3. Kill well with 2% KCl water. Keep track of all water pumped in well.
- 4. Nipple down tubing head adaptor. Nipple up 7 1/16" 3000 # BOP. Install 2 " pipe rams.
- 5. Unseat tubing hanger. Pick up to remove hanger. Pick up extra tubing to tag fill. Two extra joints should tag.
- 6. Pull out of hole with tubing. Strap out. Visually inspect all tubing for signs of corrosion or wear. Note depth of any corrosion and lay down all bad joints.
- 7. If significant fill is indicated in Step 5, pick up pump bailer and run in hole on tubing to clean out fill to PBTD, if possible. Use 2% KCl water only to operate bailer. If no fill is indicated, skip this step.
- 8. Pick up 5 ½" RBP and packer. Trip tools in hole on tubing. Set RBP at 6300'±. Pick up one joint and set packer. Test RBP to 1500 psi for 5 minutes. Release packer and load hole with 2% KCl water. Test casing from surface to RBP to 1000 psi for 5 minutes. NOTE: if tubing is scaled, run 5 ½" casing scraper before running tools in hole.
- 9. a) If casing does not hold pressure Pull out of hole with packer to 2900'±. Set packer and test from packer to RBP to 1000 psi for 5 minutes. Continue testing out until leak is isolated top and bottom.
  - b) If casing holds pressure pull out of hole with tubing. Lay down packer.
- 10. Rig up wireline unit. Run CBL / VDL from 1700' to surface to determine if casing is free enough to shoot squeeze holes fifty feet below base of Ojo Alamo and circulate to surface through bradenhead. Note: If CBL indicates cement coverage above top Farmington sand at 1115', proceed to step 16.
- 11. Run in hole with tubing and spot ten foot of 20/40 frac sand on top of RBP
- 12. If other zones require squeeze work, complete these first. Rig up wireline unit and lubricator on BOP. Run in hole with squeeze gun loaded with three shots on 120° phasing. Shoot squeeze holes at 990'. Pull out of hole with gun. Close blind rams and rig up pump line to casing valve. Open bradenhead valve. Pump down casing with fresh water and monitor bradenhead output to insure fluid is moving up

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annulus. Shut down pump. Monitor bradenhead for flow. If bradenhead continues to flow, mix and pump a 9.5 ppg mud until this weight mud returns to the surface through the bradenhead. Shut down pump and monitor bradenhead for flow. As soon as bradenhead flow is killed, mix and pump 65 sacks (76.7 cf) of Class B cement with xxxx. Displace cement with fresh water down casing to spot plug inside and outside casing from 890' to 990'. This cement volume is calculated using 100% excess for annular volume and 50% excess for casing volume. Circulate out bradenhead while cementing. Shut in casing at surface and bradenhead valve as soon as cement is on spot.

- 13. WOC 12 hours minimum.
- 14. Pressure test casing above squeeze to 1000 psi for 5 minutes.
- 15. Pick up 4 3/4" spade mill, 5 1/2" casing scraper, six 3 "drill collars and crossover to tubing thread. Run in hole on tubing to tag top of cement. Drill out cement. Test squeeze to 1000 psi for 5 minutes. Drill out any other squeezes and test in a like manner. Displace hole with clean 2% KCl water Run in hole to tag sand on top of RBP after all squeezes are drilled out and tested successfully..
- 16. Pull out of hole with 2000 feet of tubing. Displace water with nitrogen. Pull out of hole with tubing. Lay down drilling tools.
- 17. Pick up pump bailer and retrieving head. Run in hole to tag sand on RBP. Bail out sand and retrieve RBP. Pull out of hole and lay down RBP.
- 18. Run production tubing with sawtooth collar on bottom and 1.78" ID F nipple one joint above bottom. Land tubing at 6514'±.
- 19. Nipple down BOP. Nipple up tubing head adaptor.
- 20. Rig up to swab. Make first run to F nipple with tool string only. Swab well in. Return to production.
- 21. Rig down service unit and all equipment.

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		Roppy Production Co. Zachry Federal #1	
Table 10 to	Ojo Alamo 775' -  Kittland 940' -  Fraitland 103' -  Fraitland 1790 -  Fraitland 1790 -  Chacra 2503' -  Chacra 2503' -  Cliff House 3575' -  Menefec 3610' -  Fr. Lockout 4232'	302' 10.750" 32.75 ppf H-40 casing set al 302' KB  Cemento with 300 sacks regular cement with  Dio Not report circulation to surface.  70% fill up = 300x1.18x.7 = 247.8cf  12/4×10³/4 = 5.3144 ff/ef  247.8 x 5.3144 = 1317' should be adequently circulate  Carce Toc (9" OH)  150×1.26 x 7 = 132.3cf  132.3 x 3.6127 = 478'  2000-478 = 1522'  DV tool did not close. WOC 48 hrs. BD@11  Squeeze with 61 sacks total into DN tool get. Squeeze to 3000±. Drill out cemently casing to 3500psi	ate to oith 2% gel. 800≈ 1 to
	Gallup 5448'  Greenhorn 620'  Graneros 6341'  Dakota 6468-	Calc TOC (9"0H) 5261  6340 6350  Perfd by ? JSPF: Frac with 40,000 ga) 11. Cadzu 4608 6450  Perfd 2JSPF. Frac with 35,000 gals 11. Cadzuate  (480  Perfd 2JSPF. Frac with 35,000 gals 11. Cadzuate	r •
	Morrison 6570'- 9"OHTD 6625'	5% 17.0ppf Korn Casing set at 6622' KB  Cement Stage 1 with 200 sacks 50/50 Poz with 4% ge by 200 sacks 50/50 Doz with 2% gal.  (200 x 1.43 x .7) + (200 x 1.26 x .7) = 376.6 ef 5 1/2 x 9: 3.6 127 ft/cf 376.6 x 3.6 127 = 1361' fill 622 - 1361 = 5261'	

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