

submitted in lieu of Form 3160-5

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

Sundry Notices and Reports on Wells

1. Type of Well GAS	5. Lease Number SF-078198
2. Name of Operator Southland Royalty	6. If Indian, All. or Tribe Name
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	7. Unit Agreement Name
4. Location of Well, Footage, Sec., T, R, M 910'FNL, 1190'FWL Sec.1, T-30-N, R-11-W, NMPM	8. Well Name & Number Nye #11
	9. API Well No. 30-045-09963
	10. Field and Pool Basin Dakota
	11. County and State San Juan Co, NM

12. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OTHER DATA

Type of Submission	Type of Action
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment	<input type="checkbox"/> Plugging Back
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Altering Casing
	<input checked="" type="checkbox"/> Other - pay add

<input type="checkbox"/> Change of Plans
<input type="checkbox"/> New Construction
<input type="checkbox"/> Non-Routine Fracturing
<input type="checkbox"/> Water Shut off
<input type="checkbox"/> Conversion to Injectio

13. Describe Proposed or Completed Operations

It is intended to perforate and test the Burro Canyon. perforate and test additional bypassed sands within the lower Dakota formation, and remediate the bradenhead flow per the attached procedure and wellbore diagram.

RECEIVED  
APR 18 1994  
OIL CON. DIV.  
DIST. 3

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

Signed [Signature] (JK) Title Regulatory Affairs Date 4/6/94

(This space for Federal or State Office use)

APPROVED BY \_\_\_\_\_ Title \_\_\_\_\_

CONDITION OF APPROVAL, if any:

APPROVED

APR 12 1994

DISTRICT MANAGER

**Pertinent Data Sheet - Nye #11**

**Location:** 910' FNL, 1190 FWL, Section 01, T30N, R11W, San Juan County, New Mexico

**Field:** Basin Dakota

**Elevation:** 6204' GR

**TD:** 7226'

**PBTD:** 7193'

**Completed:** 07-01-64

**DP #:** 53587

**Casing Record:**

<u>Hole Size</u>	<u>Csg Size</u>	<u>Wt. &amp; Grade</u>	<u>Depth Set</u>	<u>Cement</u>	<u>Top/Cement</u>
12 1/4"	8 5/8"	24.0# Armco	289'	225 sxs	Surface/Circ
7 7/8"	4 1/2"	9.5#/10.5#	7226'	550 sxs	TOC @ 6080' TS
		DV Tool @	2733'		TOC @ 947' Calc
		DV Tool @	5107'		TOC @ 3917' Calc

**Tubing Record:**

<u>Tbg Size</u>	<u>Wt. &amp; Grade</u>	<u>Depth Set</u>
2 3/8"	4.7# J-55	6948'

**Formation Tops:**

Pictured Cliffs: 2548'  
Cliffhouse: 4100'  
Point Lookout: 4783'  
Gallup : 6084'  
Dakota: 7018'

**Logging Record:** IES Log, Temp Survey

**Stimulation:**

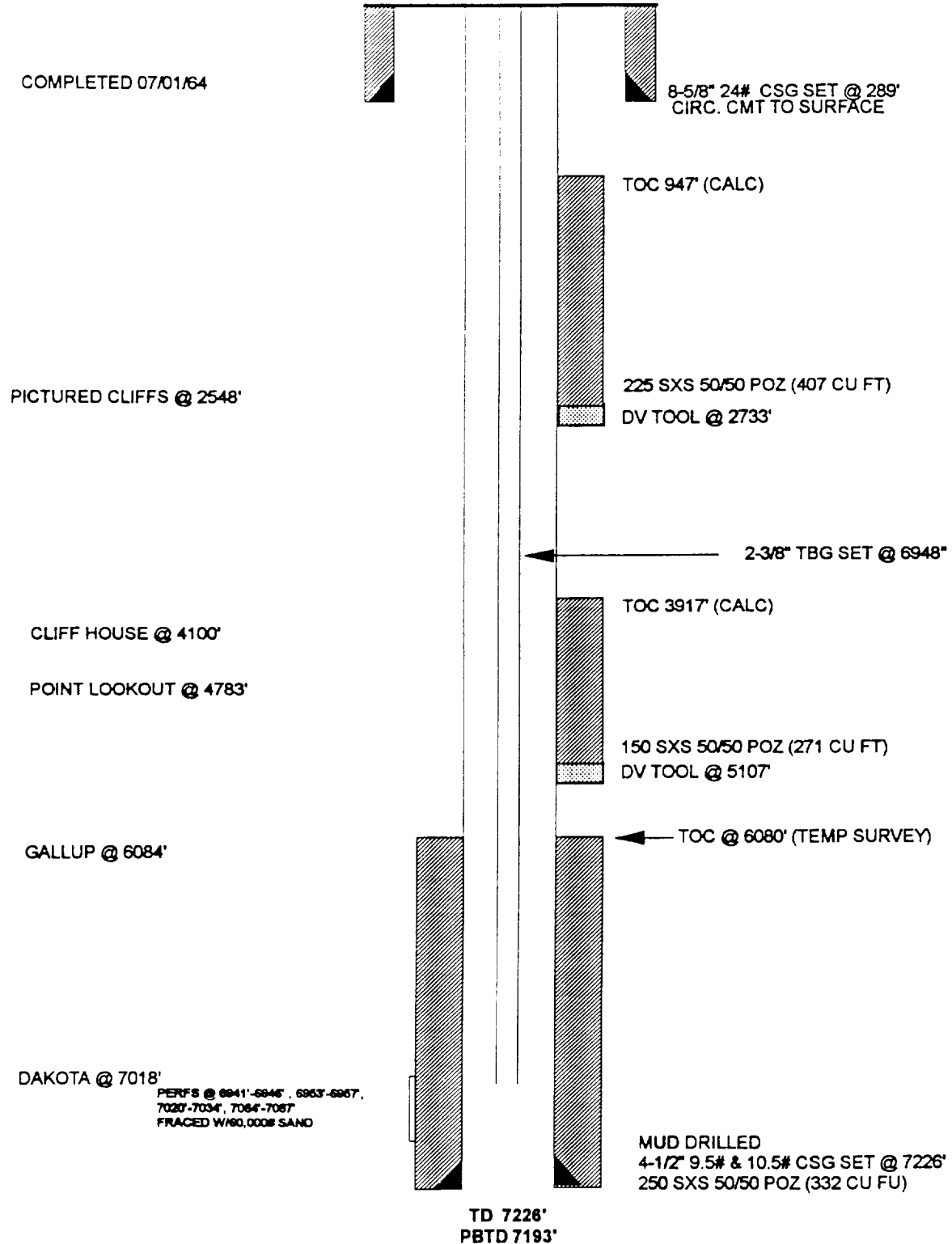
Perf: 6941' - 6946', 6953' - 6957', 7020' - 7034', 7064' - 7087' w/4 SPF.  
Frac: w/50,000# 20/40 sand, 10,000# 10/20 sand & 84,460 frac. Flush w/6300 gal.

**Workover History:**

**Production History:**

**Transporter:** EPNG

**NYE #11**  
**CURRENT**  
**BASIN DAKOTA**  
UNIT D, SEC 1, T30N-R11W, SAN JUAN COUNTY, NM



**Nye #11**  
**Burro Canyon/Lower Dakota Payadd**  
**NW/4 Section 1, T30N-R10W**

Preliminary Procedure.  
Final procedure to come  
under separate cover.  
JAK

1. Hold safety meeting. MIRU. Install safety equipment and fire extinguishers in strategic locations. Follow all MOI and regulatory rules and regulations during workover operations.
2. If necessary, kill well with water. ND WH, NU BOPs.
3. TOOH with 2-3/8" tubing set @ 6948'. Replace bad tubing joints as needed.
4. PU 3-7/8" bit. TIH to TD and drill float collar, cement and casing shoe (PBTD 7193', TD 7226'). Stop drilling at bottom of casing shoe. TOOH.
5. Lay down bit, PU casing scraper. Make scraper run to COTD. Circulate with air on bottom to clean hole. TOOH. Lay down casing scraper.
6. RU wireline. Run GR-CCL-TDT from COTD to 6000'. Use this run for correlation strip to open hole logs when perforating. Wireline set a CIBP at the top of the casing shoe. Wireline set a RBP at 6900'. RD wireline. Have TDT sent to computing center for immediate processing. Have field copy brought to MOI's office immediately.
7. Run CBL-CCL-GR from PBTD to surface. Pressure test casing to 800 psi for 15 minutes. If pressure test fails, TIH with packer and locate failure (test RBP first). If RBP fails, replace with new one. If casing fails, locate failure and contact engineering for squeeze procedure. Cement will be circulated from TOC to surface before proceeding with Burro Canyon and Dakota payadds. Engineering will provide cement squeeze procedure based on CBL run.
8. Drill out CIBP set at 6900' in step 6. TIH to TD and cleanout hole with air. TOOH.

**Burro Canyon Completion Procedure:**

9. Contact engineering 2 hours before commencing with following perforating steps. RU wireline. Perforate the following intervals underbalanced at 4 SPF with 0.5" diameter holes and 90 degree phasing: (60 holes total)

7210-7225' (15')

Record fluid level when going in hole with perforating guns and contact engineering if fluid level is below 5000'.

Inspect guns on surface to ensure all charges fired properly. RD wireline.

10. Flow test well if possible. Report to engineering before proceeding.
11. PU 2-7/8" workstring with shaved collars.
12. PU packer and TIH with workstring. Set packer at 7200'. SI well. RU slickline and RIH with analog pressure bomb to top of packer. SI well for 12 hours once pressure bomb is on bottom. Monitor surface pressure, recording pressures every 15 minutes. Report pressures to engineering every four hours.

13. RU BJ. Open packer bypass and spot 3% Ammonium Chloride water across packer followed by 1000 gallons of 10% HCl and 1500 gallons 7.5:1.5% HCl:HF acid. Close bypass. Inject 1000 gallons of 10% HCl and 1500 gallons 7.5:1.5% HCl:HF acid, flush and overflush (250 gallons) with 3% Ammonium Chloride water. Contact engineering for maximum injection pressure.
14. Flow well back to tank. If well logs off, swab until well kicks off. When fluid returns have diminished, flow test well for 3 hours. Record rate every 15 minutes, report results to engineering every hour. SI well.
15. At this point a decision will be made whether or not to fracture stimulate the Burro Canyon. If the decision is made not to stimulate, skip to the Lower Dakota completion procedure, otherwise, proceed with fracture stimulation.
16. RU BJ with surface equipment and tubulars rated to at least 6000 psi working pressure. Pressure test all surface lines to 6000 psi. **Maximum allowable treating pressure is 5000 psi.** Fracture stimulate Burro Canyon as described below:
  - a. Pump 2000 gallons 30# gelled water at 5 bpm (steady rate) then shut-in to obtain closure.
  - b. Pump 2500 gallons 30# gelled water (enough volume to obtain steady BHTP) at 10 bpm (steady rate). Shut-in and obtain closure.
  - c. Fracture stimulate with 20,000 gallons Spectra Frac G-300 and 50,000 lbs 20/40 EconoProp at 10 bpm, 3340 psi estimated surface treating pressure (pad stage).

Note: Trace pad fluids with Antimony and trace all sands with Iridium.
17. Flow-back well naturally as long as possible. When either flow has ceased or returns have reached a level allowing release of the packer, release the packer and TOOH.
18. TIH with 2-3/8" tubing and clean out to PBTD with air.
19. When returns have diminished (both sand and water), TOOH. PU packer and TIH w/ 2-3/8" tbg. Set packer @ 7200'. Flow test well for 6 hours. Record rate every 15 minutes and report to engineering every two hours.

#### **Lower Dakota Completion Procedure:**

20. Release packer and TOOH. RU wireline. Wireline set a RBP at 7200'.
21. Contact engineering 2 hours before commencing with following perforating steps (perforation intervals may change as a result of TDT analysis). RU Wireline. Perforate the following intervals underbalanced at 4 SPF with 0.5" diameter holes and 90 degree phasing: (96 holes)

7180-90' (10')

7192-7204' (12')

Record fluid level when going in hole with perforating guns and contact engineering if fluid level is below 5000'.

Inspect guns on surface to ensure all charges fired properly. RD wireline.
22. TIH with 2-7/8" tubing and packer. Set packer at 7150'. Flow test well if possible. Report to engineering before proceeding.

23. RU BJ and acidize Lower Dakota intervals with 2500 gallons 15% HCl containing 100 Select-O-Balls (1.1 s.g., 7/8" dia.). Release packer and TIH to unseat balls. PUH and reset packer at 7150'.
24. RU BJ with surface equipment and tubulars rated to at least 6000 psi working pressure. Pressure test all surface lines to 6000 psi. **Maximum allowable treating pressure is 5000 psi.** Fracture stimulate Lower Dakota as described below:
- a. Pump 2000 gallons 35# gelled water at 5 bpm (steady rate) then shut-in to obtain closure.
  - b. Pump 4000 gallons 35# gelled water (enough volume to obtain steady BHTP) at 20 bpm (steady rate). Shut-in and obtain closure.
  - c. Fracture stimulate with 37,000 gallons Sepctra Frac G-3500 and 100,000 lbs 20/40 EconoProp at 20 bpm, 4755 psi estimated surface treating pressure (pad stage).
- Note: Trace pad fluids with Scandium and trace all sands with Iridium.
25. Flow-back well naturally as long as possible. When either flow has ceased or returns have reached a level allowing release of the packer, release the packer and TOOH laying down workstring.
26. TIH with 2-3/8" tubing and clean out to PBTD with air.
27. When returns have diminished (both sand and water), TOOH. PU RBP retrieving head, packer and TIH with 2-3/8" tubing. Set packer @ 7150'. Flow test well for 6 hours. Record rate every 15 minutes and report to engineering every two hours.
28. Release packer and TIH. Release RBP and TOOH. Laydown packer and RBP. TIH with 2-3/8" tubing and clean out to COTD. Blow well until sand production has ceased and water production has diminished. TOOH.
29. RU wireline. Run multi-isotope after frac gamma ray from COTD to 7000'. RD wireline.
30. TIH with 2-3/8" tubing string. Land tubing at 6948'.
31. ND BOP's, NU WH. RDMO. Return well to production.

Approval:

  
J. A. Howieson

**Vendors:**

Stimulation - BJ Services (325-6961)  
Perforating - Basin Perforators (327-5244)  
Multi-Isotope After Frac Gamma Ray - Halliburton Wireline (325-3544)  
Radioactive Tagging - Pro\_techncs (326-7133)

*See 1st page of  
procedure.*