

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

2. Name of Operator

**BURLINGTON  
RESOURCES**

OIL & GAS COMPANY

3. Address & Phone No. of Operator

PO Box 4289, Farmington, NM 87499 (505) 326-9700

4. Location of Well, Footage, Sec., T, R, M

790' FNL, 1525' FWL, Sec. 29, T-27-N, R-5-W, NMPL

5. Lease Number  
SF-079392

6. If Indian, All. or  
Tribe Name

Unit Agreement Name

8. Well Name & Number  
San Juan 27-5 U #165M

9. API Well No.  
30-039-23903

10. Field and Pool  
Blanco MV/Basin DK

11. County and State  
Rio Arriba Co, NM

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

Type of Submission

☒ Notice of Intent

☐ Subsequent Report

☐ Final Abandonment

Type of Action

☐ Abandonment

☐ Recompletion

☐ Plugging Back

☐ Casing Repair

☐ Altering Casing

☒ Other - Pay add and commingle

☐ Change of Plans

☐ New Construction

☐ Non-Routine Fracturing

☐ Water Shut off

☐ Conversion to Injection

13. Describe Proposed or Completed Operations

It is intended to add pay to the Mesaverde formation and commingle the subject well according to the attached procedure and wellbore diagram. A down-hole commingle application will be submitted.

RECEIVED  
BLM  
59 MAR 10 PM 12:57  
070 FARMINGTON, NM

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

Signed [Signature] (JLDOpps) Title Regulatory Administrator Date 3/10/99

(This space for Federal or State Office use)

APPROVED BY [Signature] Title Team Lead, Regulatory Administration Date MAR 16 1999

CONDITION OF APPROVAL, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

NMOCD

**San Juan 27-5 Unit #165M**  
Lewis/Menefee Pay Add Procedure  
Unit C, Section 29, T27N, R05W  
Lat: 36°- 32.99286'/Long: 107°- 23.11614'

*This well is currently completed in the Cliffhouse, Point Lookout and Dakota. It is intended to add the Lewis and Menefee intervals and consequently commingle the Mesaverde and Dakota production. The Menefee will be sand fracture stimulated in a single stage using 58,500 lbs 20/40 sand in a 30 lb linear gel, while the Lewis will be completed in a single stage with 200,000 lbs 20/40 sand in a 70Q 20lb linear gel.*

1. Inspect location and test rig anchors. Comply with all NMOCD, BLM, Forestry & BR rules and regulations. Dig flowback pit or set flowback tank. Haul to location 9 jts 2-7/8" N-80 tubing, 2-7/8" X 3-1/2" N-80 crossover, 5400', 3-1/2" frac string and 5-400 bbl frac tanks.
2. MIRU. Fill 400 bbl tanks with 2% KCL water. Run fluid tests on water. Filter water based upon stimulation company water analysis. Record and report SI pressures on tubing, casing and bradenhead. Lay blowdown line. Blow well down and kill with 2% KCL water as necessary. ND WH and NU BOP with flow tee and stripping head. Test operation of rams. NU blooie line and 2-7/8" relief line. Redress production wellhead as needed.
3. TOOH with 1-1/2", 2.9 lb/ft, J-55, 10 rd Mesaverde production string set at 5865'. LD 1-1/2" tubing. Sting out of Model 'D' production packer at 5940' with 2-3/8", 4.7 lb/ft J-55 EUE Dakota production string set at 7672'. TOOH. Visually inspect tubing, note and report any scale in/on tubing. Replace bad joints as necessary. TIH with packer mill and plucker. Mill over Model 'D' packer at 5940' and pluck packer. TOOH with packer.
4. RU wireline company. Run a gauge ring for 7", 23 lb/ft, N-80 casing to 4-1/2" liner top at 5965'. RIH with a 4-1/2" CIBP. Set CIBP at 6050'. ND wireline company.
5. TIH with 7" tubing set RBP and packer on 2-3/8" tubing. Set RBP at ~4890'. Release from RBP and fill casing with approximately 320 bbls 2% KCL. TOOH.
6. NU logging company. Run GR-CBL-CCL from PBTD to 3450'. Evaluate CBL. Good cement bond must exist from PBTD to 3750' to continue with the Lewis portion of the procedure.

**MENEFEE:**

7. TIH with 7" RBP retrieving head and packer on 2-3/8" tubing. Latch on to RBP at 4890'. Release RBP and allow pressures to equalize. Lower RBP to 5420'. Set RBP at 5420'. Release from RBP. Set packer just above RBP and pressure test to 3600 psi. Bleed off pressure and release packer. PUH to 5340'. Spot 9 bbls 15% HCL across Menefee perf interval (5149-5331').

All acid on this well to contain the following additives per 1000 gals.

2 gal	HAI-81M	Corrosion inhibitor
5 gal	FE-1A	Iron Control
5 gal	FE-2A	Iron Control
1 gal	SSO-21	Surfactant
1 gal	ClaSta XP	Clay control

8. NU wireline. Correlate openhole log to GR-CBL-CCL. Perforate Menefee as follows using select fire HSC guns loaded with Owens HSC-3125 302T 10 gram charges set at 1 SPF (Av. perf diameter - 0.30", Av. pen. -16.64" in concrete).

5149', 5152', 5153', 5159', 5161', 5167', 5168', 5169', 5185', 5192', 5201', 5203',  
5205', 5222', 5223', 5267', 5269', 5271', 5273', 5277', 5279', 5281', 5312', 5313',  
5314', 5315', 5325', 5327', 5329', 5331' (30 holes total)

ND wireline company.

9. TIH with 7" bottom Baker C-cup straddle packer. 6 jts 2-7/8" N-80 tubing, 7" top straddle packer, 3 joints 2-7/8" N-80 tubing, 2-7/8" X 3-1/2" N-80 crossover, and remaining 3-1/2", frac string. Set bottom packer at ~5070' and top packer ~4890' (Cliffhouse perfs 4914-5054').
10. RU stimulation company. Pressure test surface lines to 7500 psi. **Maximum surface treating pressure is 6500 psi.** Apply 500 psi to annulus. Monitor annulus for communication. Establish an injection rate into perfs with 2% KCL water observing a maximum pressure of 6500 psi. Once pressure has broken back and stabilized, continue to breakdown Menefee perforations with 25 bbls 15% HCL at the maximum rate pressures will allow. Use the same additives as in Step #7.
11. **Maximum surface treating pressure is 6500 psi. Monitor annulus during stimulation.** Fracture stimulate Menefee with 58,500 lbs 20/40 Arizona sand in 35,000 gals 30 lb linear gel at **50 BPM**. Average surface treating pressure will be 3,812 psi. Total estimated tubing and perforation friction will be 3,985 psi. Treat per the following schedule:

Stage	Water (gals)	Sand Volume (lbs)
Pad	5,000	
1.0 ppg	6,500	6,500
2.0 ppg	16,250	32,500
3.0 ppg	6,500	19,500
Flush (top perf)	1,949	
Totals	36,199	58,500

Slow rate during flush. If well is on vacuum near end of frac job, cut flush as necessary to avoid overflushing. Record ISIP, 5 minute, 10 minute and 15 minute SIP. RD stimulation company.

12. Open well through a positive choke or choke manifold. Monitor flow. Flow at 20 BPH or less, if sand is observed. When pressures allow, release packers and TOOH. Stand back 3-1/2" frac string, 3-1/2" X 2-7/8" N-80 crossover, and 2-7/8" N-80 tubing. LD top 7" straddle packer, 2-7/8" N-80 tubing and bottom 7" straddle packer.

**LEWIS:**

13. NU wireline. Set 7" RBP at 4800'.
14. Perforate Lewis with 30 holes using select fire HSC guns loaded with Owens HSC-3125 302T 10 gram charges (Av. perf diameter - 0.29", Av. pen. -16.64" in concrete) set at 1 SPF.

3854', 3856', 3858', 3906', 3908', 3910', 4068', 4070', 4106', 4108', 4110', 4248',  
4250', 4252', 4264', 4266', 4268', 4270', 4272', 4402', 4404', 4406', 4408', 4454',  
4456', 4458', 4588', 4590', 4638', 4640' (30 holes total)

ND wireline company.

15. TIH with 7" packer, 3 joints 2-7/8" N-80 tubing, 2-7/8" X 3-1/2" N-80 crossover, and remaining 3-1/2", frac string. Set packer just above RBP at 4800'. Pressure test RBP to 3600 psi. Bleed off pressure and release packer. PUH with packer and set at 3650'. If squeeze work was necessary, set packer at top of good cement.
16. Pressure test surface lines to 7500 psi. Hold tailgate safety meeting. Establish an injection rate into perfs with 2% KCL water observing a maximum pressure of 6500 psi. Once pressure has broken back and stabilized, shut pumps down and obtain an ISIP. Continue to breakdown Lewis perforations with 25 bbls 15% HCL. Drop 60 RCN 7/8" 1.3 specific gravity balls evenly spaced. Attempt to ball off to 3600 psi surface pressure. Use the same additives as in Step #7.
17. ND stimulation company. Release packer. Lower packer to 4650' to knock balls off perforations. PUH and re-set packer at 3750'. If squeeze work was necessary, set packer at top of good cement.
18. NU stimulation company. **Maximum surface treating pressure is 6500 psi.** Apply 500 psi to annulus. Monitor annulus pressure throughout stimulation. Fracture stimulate the Lewis with 200,000 lbs 20/40 Arizona sand in 2173 bbls 70Q 20 lb linear gel at **50 BPM.** **Tag sand with 3 radioactive isotopes.** Average surface treating pressure will be 6,318 psi. Perforation and tubing friction is estimated to be 4,986 psi. Treat per the following schedule:

Stage	Downhole Foam Volume (gals)	Clean Gel Volume (gals)	N2 Volume (MSCF)	Sand Volume (lbs)
Pad	15,000	4,500	156.1	---
1.0 ppg	12,000	3,600	124.7	12,000
2.0 ppg	21,000	6,300	218.1	42,000
3.0 ppg	27,333	8,200	283.7	82,000
4.0 ppg	16,000	4,800	166.0	64,000
Flush (100' above top perf)	1,337	401	13.9	0
<b>Totals</b>	<b>92,670</b>	<b>27,801</b>	<b>963</b>	<b>200,000</b>

Cut rate throughout flush as pressure allows. Record ISIP, 5 minute, 10 minute and 15 minute SIP. RD stimulation company.

19. Flow well back after 30 minutes to 1 hour through a choke manifold. Open well to pit, starting with a 10/64" choke. If minimal sand is being produced, change to a larger choke size (16/64"). If choke plugs off, shut well in and remove obstruction from choke and return to flowback. Continue increasing choke size and cleaning well up until fluid returns are negligible.
20. When pressures allow, release packer and TOOH. LD 3-1/2" frac string, 3-1/2" X 2-7/8" N-80 crossover, 2-7/8" N-80 frac string and packer.

21. TIH with 7" RBP retrieving head on 2-3/8" tubing. Clean out to RBP at 4800'. Monitor gas and water returns when applicable. Alternate between natural flow and blow stages for clean up. **Take a Lewis pitot gauge.** When sand production allows, latch on to RBP. Release RBP and allow pressures to equalize. TOOH with RBP and LD.
22. TIH with 7" RBP retrieving head on 2-3/8" tubing. Clean out to RBP at 5420'. Alternate between natural flow and blow stages for clean up. Monitor gas, water and sand returns when applicable. **Take a Lewis/Cliffhouse/Menefee pitot gauge.** When sand production allows, latch on to RBP. Release RBP and allow pressures to equalize. TOOH with RBP and LD.
23. TIH with 3-7/8" bit on 2-3/8" tubing. Clean out to 6050'. Alternate between natural flow and blow stages for clean up. When water rates are below 3 BPH and there is no sand production, run Mesaverde only 3 hour production test through separator using a back pressure of 150 psi. This is necessary for determining Lewis/Menefee pay add contribution for determining accurate commingling allocations.
24. Drill out CIBP at 6050' using a 10-12 BPH mist rate. Chase CIBP to PBTD of 7717'. TOOH.
25. TIH with an expendable check, one 2-3/8" joint, standard SN and remaining 2-3/8" tubing. Broach tubing while running in hole. CO with air/mist to PBTD again, if necessary. **Obtain final Lewis/Cliffhouse/Menefee/Point Lookout/Dakota pitot gauge.** Land tubing at 7672'. ND BOP. NU WH. Pump off expendable check. RDMO. Contact Production Operations for well tie-in.
26. RU Pro-Technics. Run After-Frac log across Lewis (3854-4640'). RD Pro-Technics.

Recommended:

  
Production Engineer

Approved:

  
Drilling Superintendent

Approved:

  
Team Leader

Contact:

Jennifer Dobson

599-4026 (work)

564-3244 (home)

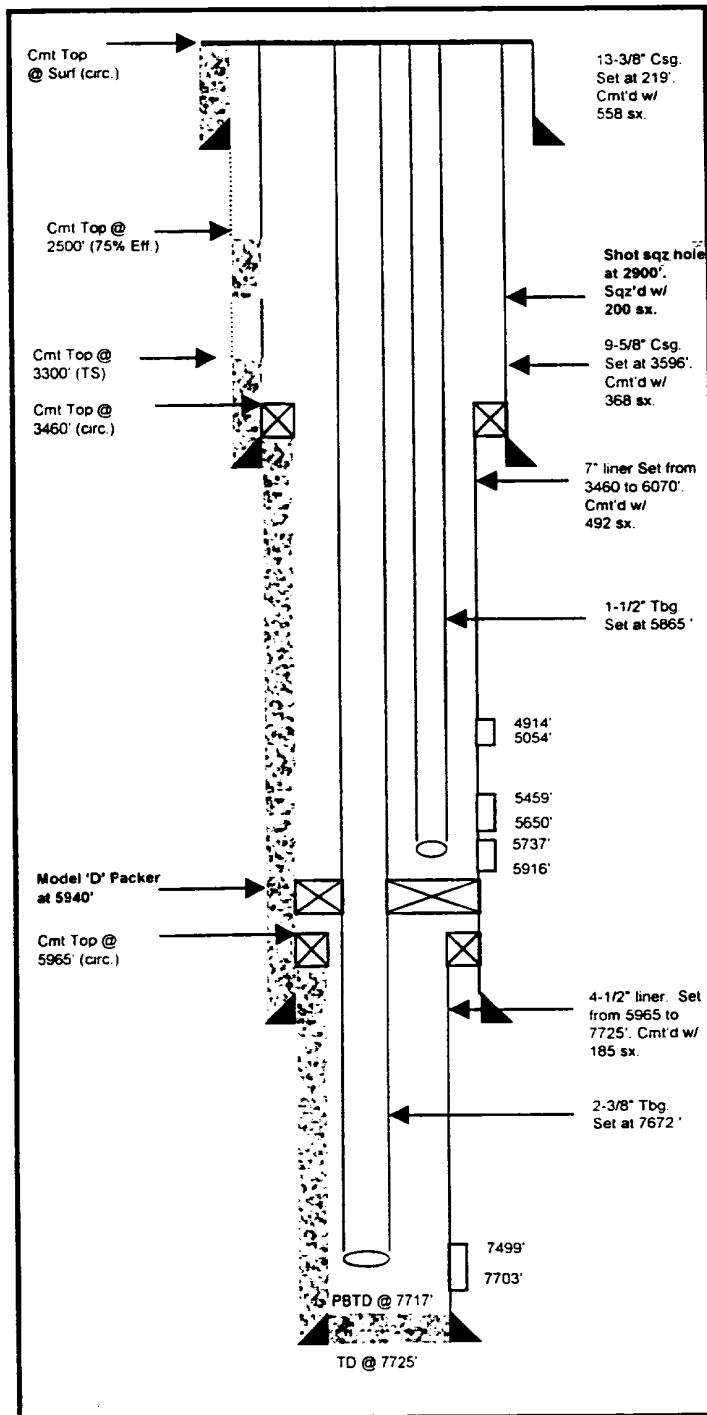
324-2461 (pager)

# San Juan 27-5 Unit #165M

Unit C, Section 29, T27N, R5W  
Rio Arriba County, NM

Lat: 36° - 32.99286'/Long: 107° - 23.11614'

Current Schematic



Proposed Schematic

