

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**

3. Address & Phone No. of Operator

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

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

990' FSL, 964' FWL, Sec. ^M25, T-28-N, R-5-W

5. Lease Number
SF 079520 A

6. If Indian, All. or
Tribe Name

7. Unit Agreement Name
San Juan 28-5 Unit

8. Well Name & Number
San Juan 28-5 U 78

9. API Well No.
30-039-2010500

10. Field and Pool
Basin DK/Blanco MV

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 -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 recomplete the subject well in the Mesaverde formation according to the attached procedure and wellbore diagram. The well will then be down hole commingled. A down hole commingle order will be applied for.

RECEIVED
JAN 12 1998
OIL CON. DIV.
DIST. 3

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

Signed *John J. Shadwell* (JLDopps) Title Regulatory Admin. Date 12/30/97

(This space for Federal or State Office use)

APPROVED BY *AS Duane W. Spencer* Title _____ Date JAN - 8 1998

CONDITION OF APPROVAL, if any:

ok @

NMOC

District I
PO Box 1980, Hobbs, NM 88241-1980

District II
PO Drawer 00, Artesia, NM 88211-0719

District III
1000 Rio Brazos Rd., Aztec, NM 87410

District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form
Revised February 2:
Instructions c
Submit to Appropriate District
State Lease - 4
Fee Lease - 3

☐ AMENDED RE

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-039-20105	72319/71599	Blanco Mesaverde/Basin Dakota
Property Code	Property Name	Well Number
7460	SAN JUAN 28-5 UNIT	78
GRID No.	Operator Name	Elevation
14538	BURLINGTON RESOURCES OIL & GAS COMPANY	6907'

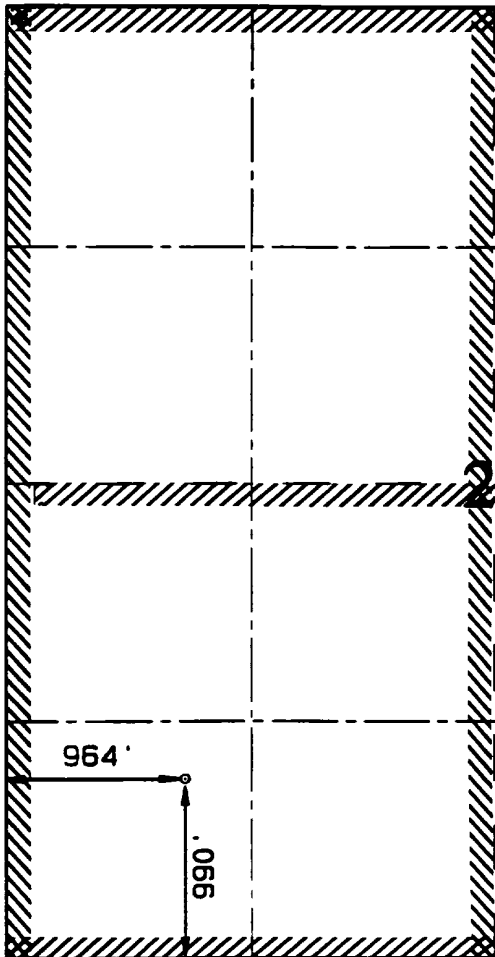

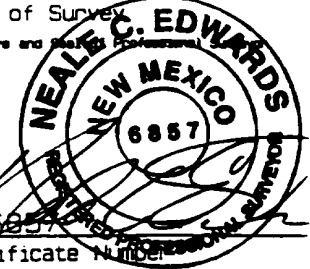
10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	Co.
M	25	28N	5W		990	South	964	West	RI ARR

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	Co.
12 Reduced Area	13 Joint or Infill	14 Consolidation Code	15 Order No.						
NV-S/544.48 DK-W/320									

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	<p>*Not re-surveyed: Prepared from plat By: David O. Vilven Dated: 11 January, 1968</p>	<p>17 OPERATOR CERTIFICATION I hereby certify that the information contained true and complete to the best of my knowledge.</p> <p> Signature Peggy Bradfield Printed Name Regulatory Administrator Title Date</p>
	<p>25</p> <p>RECEIVED JAN 12 1998 OIL CON. DIV. DIST. 3</p>	<p>18 SURVEYOR CERTIFICATION I hereby certify that the well location shown on was plotted from field notes of actual surveys or under my supervision, and that the same is correct to the best of my belief.</p> <p>OCTOBER 29, 1997 Date of Survey Signature and Seal of Professional  Certificate Number</p>

San Juan 28-5 Unit #78

Mesaverde Recompletion Procedure

Unit M, Section 25, T28N, R5W

Lat: 36° - 37.65378 min./ Long: 107° - 18.95508 min.

The well is currently completed in the Dakota with a production rate of 50 MCFD and remaining reserves of 749 MMCF. It is intended to recomplete the Mesaverde and commingle it with the Dakota. The Mesaverde interval will be sand fracture stimulated in two stages, Point Lookout/Lower Menefee and Cliffhouse/Upper Menefee, using a total of 120,000 gals 30 lb linear gel and 180,000 lbs 20/40 sand.

1. Inspect location and test rig anchors. Comply with all NMOC, BLM, Forestry & BR rules and regulations. Dig flowback pit or set flowback tank. Haul to location a new or inspected 8300'. 2-3/8" production string, 3 jts 2-3/8" N-80 tubing, 2-3/8" X 2-7/8" N-80 crossover. 6150', 2-7/8" N-80 frac string with shaved collars and 10, 400 bbl frac tanks
2. MIRU. Fill one 400 bbl tank with 2% KCL water. 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 2-3/8" Dakota production string set at \pm 8040' and LD. Send string in to be inspected and salvaged, if possible. Visually inspect tubing, note and report any scale in/on tubing. If tubing had appreciable scale when pulled from hole, call Jennifer Dobson at ext. 4026 to see if Dakota acid wash is needed.
4. PU and RIH with a 3-7/8" bit, 4-1/2" (10.5 lb/ft) casing scraper on the 2-3/8" inspected tubing string hauled to location. Clean out to PBTD (~8258') with air. TOOH.
5. RU wireline. RIH and set CIBP at 6200'. RD wireline.
6. Load hole with 2% KCL water. MIRU logging company. Run GR-CBL-CCL from PBTD to top of 4-1/2" cement top. Evaluate CBL. Top of good cement must be above 5400' to continue.
7. PU 4-1/2" packer on 2-3/8" tubing and set at just above CIBP at 6200'. Pressure test CIBP to 3600 psi. Pressure test backside to 1000 psi. Release packer and PUH to 6130'.

Lower Menefee & Point Lookout:

8. Spot 200 gals of 15% HCL across Lower Menefee and Point Lookout perf interval from 5866' to 6126'. TOOH.

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

9. RU wireline. Perforate Lower Menefee and Point Lookout as follows 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). Be sure to perforate from top down (25 holes total).

5866', 5886', 5902', 5906', 5917', 5962', 5964', 5966', 5978', 6011', 6021', 6023', 6025', 6027', 6031', 6033', 6040', 6071', 6082', 6084', 6094', 6107', 6112', 6114', 6126'

RDMO wireline company.

10. Fill all ten 400 bbl frac tanks with 2% KCL water. Filter all water to 25 microns if brought from sources with known solids contamination. Filtration is not necessary for city water. Eight tanks (four per frac stage) are for gel and two tanks (one per frac stage) are for breakdown and flush.
11. TIH with 4-1/2" packer, tubing tester, 3 jts 2-3/8" N-80 tubing, 2-3/8" X 2-7/8" N-80 crossover, and remaining 2-7/8", N-80 frac string with shaved collars. Set packer at 5670'. Close tubing tester and test frac string to 6000 psi.
12. RU stimulation company. Pressure test surface lines to 4600 psi. Hold 500 psi on annulus. Breakdown and attempt to balloff Lower Menefee and Point Lookout perforations with 1500 gals 15% HCL and 200% excess RCN 7/8" 1.3 specific gravity perf balls to 3600 psi. Use same additives as in Step 8. Lower packer to 6130' to knock off perf balls. Reset packer at 5770'.
13. RU stimulation company. Hold a tailgate safety meeting. Pressure test surface treating lines to 6000 psi. **Maximum surface treating pressure is 5000 psi.** Hold 500 psi on annulus, behind packer, and monitor during the job. Fracture stimulate Lower Menefee and Point Lookout with 90,000 lbs 20/40 Arizona sand in 60,000 gals 30 lb linear gel at **30 BPM**. Average surface treating pressure will be 4800 psi. Treat per the following schedule:

Stage	Water (gals)	Sand Volume (lbs)
Pad	15,000	
1.0 ppg	10,000	10,000
2.0 ppg	25,000	50,000
3.0 ppg	10,000	30,000
Flush (slickwater)	1,460	
Totals	61,460	90,000

Slow rate during flush. If well is on vacuum near end of frac job, cut flush as necessary to avoid overflushing.

Frac with the following additives per 1000 gals frac fluid. **Gel will be mixed on the fly.**

* 7.5 gal	LGC-8	Gel
* 1 gal	SSO-21	Surfactant
* 0.18 lb	BE-6	Biocide
* 0.4 lb	SP	Oxidizing Breaker
* 0.2 lb	GBW-3	Enzyme Breaker

RDMO stimulation company.

14. Open well through choke manifold and monitor flow. Flow at 20 BPH or less, if sand is observed. **Take pitot gauges when possible.** When pressures allow, release packer and TOOH.
15. RU wireline. Run a gauge ring to 5850' to insure a CIBP can be set at 5840'. RD wireline. If fill is present above 5710'. TIH with 3-7/8" bit on 2-3/8" workstring and CO.

Cliffhouse & Upper Menefee:

16. PU and RIH with 4-1/2" CIBP, packer and 2-3/8" workstring. Set CIBP at 5840'. Set packer just above CIBP and pressure test to 3600 psi. Release packer and PUH to 5820'.
17. Spot 200 gals 15% HCL across Cliffhouse and Upper Menefee perf interval from 5582' to 5818'.

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

18. RU wireline. Perforate Cliffhouse and Upper Menefee as follows 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). Be sure to perforate from top down (25 holes total).

5582', 5584', 5596', 5610', 5612', 5613', 5618', 5624', 5626', 5652', 5653', 5682', 5712', 5742', 5744', 5750', 5752', 5767', 5771', 5780', 5782', 5792', 5794', 5798', 5818'

RDMO wireline company.

19. Be sure there is enough water in four tanks for gel and one tank for breakdown and flush.
20. TIH with 4-1/2" packer, tubing tester. 3 jts 2-3/8" N-80 tubing, 2-3/8" X 2-7/8" N-80 crossover, and remaining 2-7/8" N-80 frac string with shaved collars. Set packer at 5380'. Close tubing tester and test frac string to 6000 psi.
21. RU stimulation company. Pressure test surface lines to 4600 psi. Hold 500 psi on annulus. Breakdown and attempt to balloff Cliffhouse and Upper Menefee perforations with 1500 gals 15% HCL and 200% excess RCN 7/8" 1.3 specific gravity perf balls to 3600 psi. Use same additives as in Step 17. Lower packer to 5820' to knock off perf balls. Reset packer at 5480'.
22. RU stimulation company. Hold a tailgate safety meeting. Pressure test surface treating lines to 6000 psi. **Maximum surface treating pressure is 5000 psi.** Hold 500 psi on annulus behind packer and monitor during the job. Fracture stimulate Cliffhouse and Upper Menefee with 90,000 lbs 20/40 Arizona sand in 60,000 gals 30 lb linear gel at **30 BPM**. Average treating pressure will be approximately 4500 psi. Treat per the following schedule:

Stage	Water (gals)	Sand Volume (lbs)
Pad	15,000	
1.0 ppg	10,000	10,000
2.0 ppg	25,000	50,000
3.0 ppg	10,000	30,000
Flush (slickwater)	1,390	
Totals	61,390	90,000

Slow rate during flush. If well is on vacuum near end of frac job, cut flush as necessary to avoid overflushing.

Frac with the following additives per 1000 gals frac fluid. **Gel will be mixed on the fly.**


*	7.5 gal	LGC-8	Gel
*	1 gal	SSO-21	Surfactant
*	0.18 lb	BE-6	Biocide
*	0.4 lb	SP	Oxidizing Breaker
*	0.2 lb	GBW-3	Enzyme Breaker

RDMO stimulation company.

23. Open well through choke manifold and monitor flow. Flow at 20 BPH or less, if sand is observed. **Take pitot gauges when possible.** When pressures allow, release packer and TOOH. LD packer, 2-3/8" N-80 tubing, 2-3/8" X 2-7/8" crossover and 2-7/8" N-80 tubing.
24. TIH with 3-7/8" bit on 2-3/8" tubing and cleanout with air/mist to CIBP at 5840'. Monitor gas and water returns. **Take pitot gauges when possible.** When well is sufficiently clean, drill out CIBP at 5840'.
25. Continue to cleanout with air/mist to CIBP used to isolate Dakota at 6200'. **Take pitot gauges when possible.** When well is sufficiently clean, run Mesaverde only 3 hour production test through separator using a back pressure of 200 psi. This is necessary for NMOCD commingling regulations. When test is complete, drill out CIBP and continue to cleanout to PBTD. TOOH.
26. TIH with an expendable check, one 2-3/8" tubing joint, standard SN and remaining 2-3/8" tubing. Broach tubing while running in hole. CO with air/mist to PBTD again, if necessary. Land tubing at 8238'. ND BOP. NU WH. Pump off expendable check. RDMO. Contact Production Operations for well tie-in.

Recommended: 
Production Engineer

Approved:  12/5/97
Drilling Superintendent

Approved:  12/5/97
Team Leader

VENDORS:

Fracturing:	Halliburton	324-3500	
Treesaver:	WSI	327-3402	
Jennifer Dobson	599-4026 (work)	564-3244 (home)	324-2461 (pager)

San Juan 28-5 Unit #78

Pertinent Data Sheet

Lat: 36° - 37.65378 min./ Long: 107° - 18.95508 min.

General Well Information:

Location: 990 FSL, 964 FWL, Unit M, Section 25, T28N, R5W, Rio Arriba County, NM.

Federal Lease #: SF-079520-A
Property #: 007970400

DP #: 51746A
GWI/NRI:

Current Field: Basin Dakota
Spud: 6/7/68
GL Elevation: 6907'
TD: 8274'

Completed: 7/14/68
KB Elevation: 6918'
PBSD: 8258'

Casing Record:

Hole Size	Csg Size	Weight	Grade	Depth Set	Cmt Vol	Cmt Top
13-3/4"	9-5/8"	32.3 lb/ft	H-40	195'	150 sx	Circ. to sur.
8-3/4"	7"	20 lb/ft	J-55	4075'	135 sx	2760' (TS)
6-1/4"	4-1/2"	11.6 lb/ft 10.5 lb/ft	J-55 J-55	6457-8273' 0-6457'	380 sx	3790' (TS)

Tubing Record:

Tubing Size	Weight	Grade	Depth Set	Number of Jts
2-3/8"	4.7 lb/ft	J-55	8038'	253
Otis SN			8039'	1
Baker Pump Out Float			8040'	1

Formation Tops:

Pictured Cliffs: 3810'	Gallup: 7100'	Main Dakota: 8127'
Mesaverde: 5574'	Greenhorn: 7933'	
Point Lookout: 5961'	Graneros Dakota: 8004'	

Logging Record: Schlumberger Compensated Formation Density Log (7/5/68), Schlumberger Induction Electrical Log (7/5/68) and Schlumberger Induction Gamma Ray Log (7/12/68).

Completion: Perforated the Dakota in acid at 8054-69', 8152-67', 8210-25' and 8238-48' with 25 shots per zone. Frac'd the entire zone with 66,100 gals water and 65,000 lbs sand at 28 BPM and 4000 psi.

Workover History: None performed since original completion.

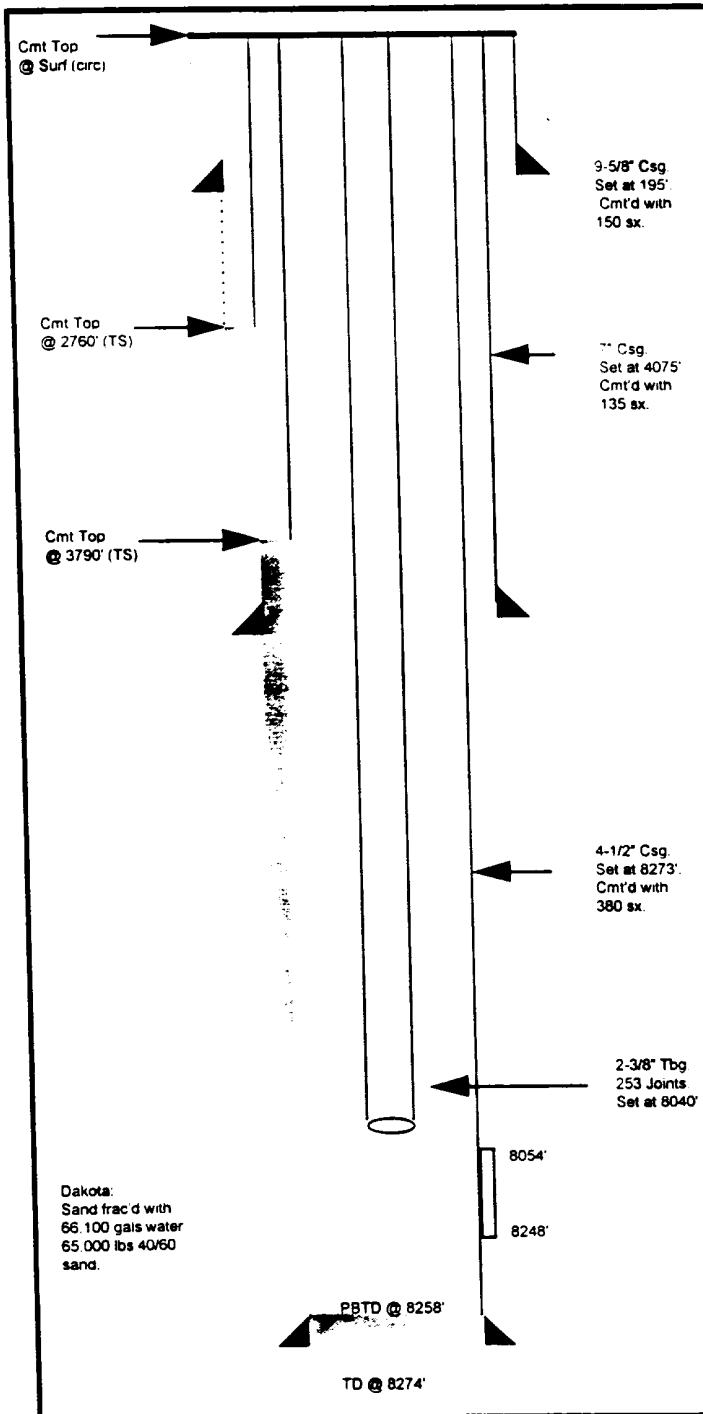
Production History: Currently producing from the Dakota. The Mesaverde in this quarter section is a slim hole Point Lookout producer with a swab cup fish setting above the perforations. By completing the Mesaverde in this well, the Cliffhouse and Menefee can be added and the Point Lookout production optimized. The well will be commingled provided producing pressures are adequate.

Pipeline: Williams Field Service

San Juan 28-5 Unit #78

Unit M, Section 25, T28N, R5W
Rio Arriba County, NM

Current Schematic



Proposed Schematic

