## UNITED STATES

# DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

Sundry Noti	ices and Reports on Wel	.ls    :52		
	070 H. J	Carl Carl	5.	Lease Number SF-079607
1. Type of Well GAS			6.	If Indian, All. or Tribe Name
		-	7.	Unit Agreement Name
2. Name of Operator  BURLINGTON				
DECOLIDEEC	& GAS COMPANY			San Juan 27-4 Unit
	h	-	8.	Well Name & Number S J 27-4 U Com NP #34
3. Address & Phone No. of Operat PO Box 4289, Farmington, NM			9.	
4. Location of Well, Footage, Se	ec., T, R, M	-	10.	Field and Pool
1180'FSL, 1700'FEL, Sec. 34, 5	Г-27-N, R-4-W, NMPM		11.	Blanco MV/Basin DK County and State Rio Arriba Co, NM
12. CHECK APPROPRIATE BOX TO IN			OTHER	DATA
Type of Submission	Type of Ac Abandonment	ction Change	of Dl	anc
_X_ Notice of Intent	Abandonment	Change New Cor		
Subsequent Report	Plugging Back	Non-Ro	itine	Fracturing
	Casing Repair _	Water S		
Final Abandonment	Altering Casing Other -	Convers	sion to	o Injection
13. Describe Proposed or Comp	leted Operations			<del></del>
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		(		GON. DIV. Dist. 3
				DES 86 0
14. I hereby certify that the Signed Manuel	foregoing is true and  (SCWPUD) Title Regula		nistra	<u>tor</u> Date 3/19/97
(This space for Federal or State APPROVED BY State Construction of the Construction of	e Office use) Title	D	ate AP	R <b>I 7 1997</b>
CONDITION OF APPROVAL, if any:				



District I PO Box 1989, Hobbs, NM 88241-1980 District II PO Drawer DD, 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, Minerais & Natural Resources Department

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

Revised February 21, 1 Instructions on t

Submit to Appropriate District Ot : 52 State Lease - 4 Co

Fee Lease - 3 Co

Form C

070 77 AMENDED REPC

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•	'API Number ' Pool Code ' Pool Name								
<u> 30-039</u> .		<u> </u>	723	19/715		lanco Megar	rordo/Bac	in Dakota	
' Property	Code			•	' Property	Name	,		Well Number
OGRID	No			Saı	n Juan 27	-4 Unit Co	m NP		34
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14538			TIME	STON KI		OIL & GAS	COMPANY		7074'
UL or lot po.	Section	Township			<sup>10</sup> Surface	<del>,                                      </del>			
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	34	27-N	4-W		1180	South	1700	East	R.A.
		T =			e Location I	f Different Fro	om Surface		
UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West tine	County
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: <i>[[][]</i>	APR 2	1 1997					was plotted fi	om field notes of actu	al surveys made by
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Date: 2/6/97

## Burlington Resources - Mesaverde Initial Completion Lat-Long: 36° 31' 33"- 107° 14' 5"

## General Well Data:

Well Name: San Juan 27-4 Unit Com #34

Location: Unit O, Section 34, T27N, R04W, 1180' FSL, 1700' FEL

County, State: Rio Arriba County, New Mexico

Field: Blanco Mesaverde Formation: Mesaverde

## **Project Objective:**

Recomplete Mesaverde PUD in existing Dakota wellbore. Commingle Mesaverde with Dakota production. Current Dakota production is 88 MCFD. Anticipated initial Mesaverde production 303 MCFD.

## **Equipment and Material Requirements:**

Deliver the following equipment to location:

- 1. 8 Jts 250' of 2-3/8" 4.7# J-55 tubing/workstring
- 2. Ten (10) 400 bbls frac tanks to be spotted and filled w/ 2% KCL
- 3. 2 its of 3-1/2 butress tubing and 5-1/2" packer
- 4. 4-3/4" bit/mill, Bit size for 4" liner cleanout will be based upon gauge ring test in step 5.
- 5. Six 3-1/8" drill collars

Below are materials required for fracture stimulations:

		<u>Mesaverde</u>		
1.	Fluid Type	25# Gel		
2.	Stages	Two		
3.	Acid Volume	80		bbls
4.	Fluid Volume 2% KCL	2869		bbis
5.	Sand Type	Arizona	Arizona	
6.	Sand Size	20/40	40/70	
7.	Sand Volume	180,000	20,000	#'s

Run fluid tests on water. Filter water based on Stimulation company solids water analysis. Contact Production Engineering and discuss stimulation water source and quality. Fill frac tanks w/ 3# biocide/tank & 2% KCL water. Put one load of fresh water in each tank before adding 20% concentrated KCL water. Set Location proppant container and fill with sand.

#### Workover Procedure:

- 1. Hold safety meeting. MIRU completion rig. Place fire and safety equipment in strategic locations. Comply with all MOI, BLM, and NMOCD rules and regulations. Record all tubing, casing, and bradenhead, and line pressures. RU flowlines. Blowdown tbg and csg.
- 2. Kill well w 2% KCL down tubing if necessary. ND wellhead. Replace any failed valves or seals on wellhead. NU BOP's and stripping head.

- 3. TOOH with 8235' of 2-3/8", 4.7#, tubing. Rabbit and strap tubing. Inspect and replace any bad joints. Use tubing for cleanout operations and rerun as production string if there is no scale or other problems.
- 4. PU 4-3/4" bit, 5-1/2" casing scraper, six (6) 3-1/8" drill collars & 2-3/8" 4.7# J-55 EUE tubing. Make scraper run and clean out with w/ gas to TOL at 7575'. TOOH. Lay down scraper and bit.
- 5. PU 3-1/4" bit, 4" casing scraper, & 2-3/8" tubing. Make scraper run and clean out liner from 7575' to PBTD w/ gas. **Note:** Window cut for sidetrack @ 7699'. TOOH. Lay down scraper and bit.
- 6. MIRU wireline unit, under lubricator PU 5-1/2" RBP and setting tool. RIH. Wireline set RBP at 6550'. POOH. RD wireline. Spot 10 ft of sand on top of RBP
- 7. Load hole with 2% KCL. Pressure test casing and RBP to 1000 psi for 15 min with rig pump.
- 8. NU wireline. RIH with CBL/CCL/GR log. Under 1000 psi, log from 6550' to 200' above TOC. Cement bond required from 6500' to 5400'. POOH. RD wireline.
- 9. PU 5-1/2" packer on 2 jts of 2-3/8" tubing. TIH and set packer @ 60'. RU stimulation company. Pressure test casing to 3000 psi (62% of burst) for 15 min. Record results. Unseat packer and TOOH. Contact engineering with results. If casing held pressure notify stimulation company that well is ready to be frac'd.

## Point Lookout Fracture Stimulation (1st Stage):

- 10. PU 2-3/8" tubing and TIH. Spot 14 bbls of 15% HCL acid (Add 2/1000 gallons corrosion inhibitor and 1/1000 gallons surfactant to acid.) from 6550' to 6000'. TOOH.
- 11. NU wireline company. Under a lubricator, RIH with 3-1/8" HSC casing gun. Select fire perforate Point Lookout <u>Top Down</u> with 1 SPF, 0.29" diameter, 18" penetration, 12 gram charges (Owen, 306T) at the following depths:

6066,	6077,	6090,	6102,	6110,	6119,	6137,	6148,	6165,	6180,
6195,	6205,	6221,	6245,	6272,	6306,	6347,	63 <b>56</b> ,	6363,	6379,
6381,	6390,	6400,	6402,	6421					

(21 total Intervals, <u>25 total holes</u>, 355' of gross interval)

POOH and ND wireline. Inspect casing gun to ensure all perforations fired.

- 12. XO to 3-1/2" pipe rams and slips. PU 5-1/2" packer on 2 jts of 3-1/2" tubing. TIH and set packer @ 60'. NU stimulation company. Pressure test surface lines to 4000 psi. Prepare to breakdown perforations. Pump into perforations to establish injection rate at maximum pressure of 3000 psi. Record breakdown pressure and rate and ISIP. Note: Calculate the number of perforations open at beginning of the job. If 90% (or more) of the holes calculate to be open, pump acid but do not drop balls. Be prepared to continue right into frac job. If less then 90% of holes are open proceed to next step. If an injection rate of > 5 BPM can be established, prepare to balloff.
- 13. Begin balloff. Pump 25 bbls of 15% HCL (Add 2/1000 gallons corrosion inhibitor and 1/1000 gallons surfactant to acid.) and flush with 2% KCL at maximum rate pressure will allow. Drop a total of 50, 7/8" 1.3 SG RCN ball sealers spaced evenly throughout job. Maximum pressure at balloff is 3000 psi. ND stimulation company. Unseat packer and TOOH.
- 14. NU wireline company. Under lubricator, RIH with 5-1/2" junk basket to recover ball sealers. Run basket by perforations several times to ensure maximum ball recovery. POOH and ND wireline company. Record number of hits and balls recovered.

- 15. PU 5-1/2" packer and reset @ 60'. NU stimulation company. Hold safety meeting. Pressure test surface lines to 4000 psi. Maximum surface treating pressure during frac is 3000 psi. Fracture stimulate Point Lookout interval per attached schedule at 40 BPM, with 10,000 #'s 40/70 sand and 90,000 #'s of 20/40 Arizona sand and 1447 bbls of 25# borate gel (Delta Frac). Quick flush at 4 ppg with 2% KCL. Flush with 141 bbls of 2% KCL to 100' of top perforation. Cut pump rate throughout flush as pressure will allow. Shutdown and record ISIP, 5, 10, and 15 min shut-in pressures. ND stimulation company. Unseat packer and TOOH. Allow sand to settle for 1 hr.
- 16. NU wireline company. Under a lubricator RIH with 5-1/2" RBP and set @ 6020'. POOH. ND wireline company. Spot 10 ft of sand on top of RBP. PU 5-1/2" packer on 2 jts of 3-1/2" tubing and set @ 60'. RU stimulation company. Pressure test RBP to 3000 psi for 15 min. Record results. Unseat packer and TOOH.

## Menefee and Cliff House perforating and fracture stimulation (2<sup>nd</sup> Stage):

- 17. XO to 2-3/8" pipe rams and slips. TIH with 2-3/8" tubing. Spot 14 bbls of 15% HCL acid (Add 2/1000 gallons corrosion inhibitor and 1/1000 gallons surfactant to acid.) from 6000' to 5400'. TOOH.
- 18. NU wireline company. Under a lubricator, RIH with 3-1/8" HSC casing gun. Select fire perforate Point Lookout <u>Top Down</u> with 1 SPF, 0.29" diameter, 18" penetration, 12 gram charges (Owen, 306T) at the following depths:

545 <del>9</del> ,	5470,	5477,	5 <b>569</b> ,	5575,	5 <b>585</b> ,	5 <b>590</b> ,	5 <b>598</b> ,	5 <b>654</b> ,	5669,
5675,	5703,	5735,	5764,	5777,	5 <b>80</b> 9,	5817,	5841,	<b>5870</b> ,	<b>5873</b> .
5917.	5920.	5929,	5938.	5942.	5992				

(21 total Intervals, 26 total holes, 533' of gross interval)

POOH and ND wireline. Inspect casing gun to ensure all perforations fired.

- 19. XO to 3-1/2" pipe rams and slips. PU 5-1/2" packer on 2 jts of 3-1/2" tubing. T!H and set packer @ 60'. NU stimulation company. Pressure test surface lines to 4000 psi. Prepare to breakdown perforations. Pump into perforations to establish injection rate at maximum pressure of 3000 psi. Record breakdown pressure and rate and ISIP. Note: Calculate the number of perforations open at beginning of the job. If 90% (or more) of the holes calculate to be open, pump acid but do not drop balls. Be prepared to continue right into frac job. If less then 90% of holes are open proceed to next step. If an injection rate of > 5 BPM can be established, prepare to balloff.
- 20. Begin balloff. Pump 25 bbls of 15% HCL (Add 2/1000 gallons corrosion inhibitor and 1/1000 gallons surfactant to acid.) and flush with 2% KCL at maximum rate pressure will allow. Drop a total of 52, 7/8" 1.3 SG RCN ball sealers spaced evenly throughout job. Maximum pressure at balloff is 3000 psi. ND stimulation company. Unseat packer and TOOH.
- 21. NU wireline company. Under lubricator, RIH with 5-1/2" junk basket to recover ball sealers. Run basket by perforations several times to ensure maximum ball recovery. POOH and ND wireline company. Record number of hits and balls recovered.
- 22. PU 5-1/2" packer and reset @ 60'. NU stimulation company. Hold safety meeting. Pressure test surface lines to 4000 psi. Maximum surface treating pressure during frac is 3000 psi. Fracture stimulate Cliff House / Menefee interval per attached schedule at 40 BPM, with 10,000 #'s of 40/70 sand and 90,000 #'s of 20/40 Arizona sand and 1423 bbls of 25# borate gel (Delta Frac). Quick flush at 4 ppg with 2% KCL. Flush with 117 bbls of 2% KCL to 500' of top perforation. Cut pump rate throughout flush as pressure will allow. Shutdown and record ISIP, 5, 10, and 15 min shut-in pressures. RD stimulation company. Unseat

packer and TOOH. XO to 2-3/8" pipe rams and slips.

- 23. PU 5-1/2" retrieving head on 2-3/8" tubing. TIH. Clean out and circulate debris off the top of the RBP set at 6020'. Obtain **15 min** pitot gauge, zone does not have to totally cleaned up. Engage RBP at 6020' and release. TOOH. Lay down RBP.
- 24. TIH with retrieving head and tubing. Clean out and circulate debris off the top of RBP set at 6550'. Clean up to less then 5 BPH water and trace of sand. Obtain stabilized pitot gauges at 15, 30, 45, and 60 min for the Mesaverde interval. Record on WIMS report. Note: Production testing required for commingle allocation will be performed after rig is released.
- 25. Engage RBP set at 6550'. TOOH. Lay down RBP.
- 26. TIH with tubing and correct bit to clean out to PBTD. Clean out to PBTD of 8310'. Clean up to less then 5 BPH and trace of sand. Obtain stabilized pitot gauges at 15, 30, 45, and 60 min for the commingled zones. TOOH with 2-3/8" tubing and bit. Lay down bit.
- 27. TIH with one joint of 2-3/8", 4.7# J-55 tubing with expendable check, a seat-nipple, and the remaining 2-3/8" tubing. Land tubing at +/- 8280. Broach tubing while running in hole to seat-nipple with sandline.
- 28. ND BOP's. NU Tree and manifold assembly. Pump off expendable check. Make swab run to kick well off if needed. Obtain stabilized pitot gauges at 15, 30, 45, and 60 min for the entire well. Record on WIMS report. SI well. RD and MOL.

Compiled By:

S. C. Woolverton

Production Engineer

Approval:

Regional Engineer

Frac Consultants

Sean Woolverton Office - (326-9837)

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Pager - (326-8931)

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James A. Smith
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Mark Byars

Mike Martinez
Pager - (599-7429)
Mob - (860-7518)
Home - (326-4861)

**VENDORS:** 

CASED HOLE: STIMULATION:

SERVICE COMPANY

**PHONE NUMBER** 

TBA

Halliburton

325-3575

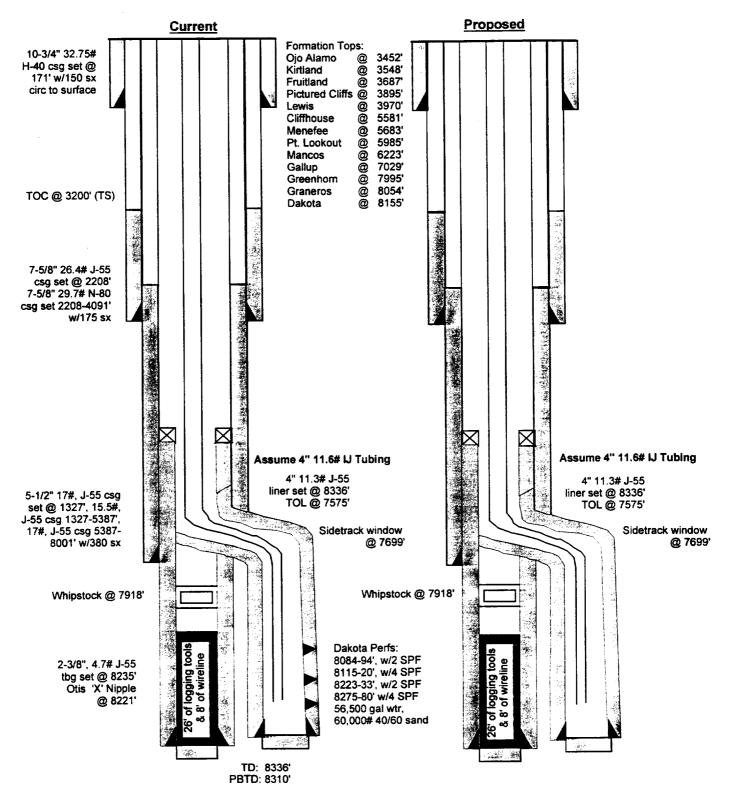
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## San Juan 27-4 Unit Com #34

## Blanco Mesaverde/Basin Dakota

Unit O, Section 34, T27N, R4W Rio Arriba County, NM Elevation: 7074' GL

LAT: 36° 31′ 33″ / LONG: 107° 14′ 5″ date spud: 05-30-64



## PERTINENT DATA SHEET

## **SAN JUAN 27-4 UNIT COM #34**

Location:	1180' FSL, 1700' FEL	Elevation:	70 <b>74'</b> GL
	Unit O, Section 34, T27N, R4W	LAT:	36° 31' 33°
	Rio Arriba County, New Mexico	LONG:	107° 14' 5"
Field:	Blanco Mesaverde/Basin Dakota	DP#:	521 <b>58A -</b> DK
<u>TD:</u>	8336'		35628A - MV
PBTD:	8310'	GWI:	91.51% (DK)
Spud Date:	05-30-64	NRI:	76. <b>78%</b> (DK)
Completion Da	te: 07-14-64	GWI:	92.33% (MV)
		NRI:	77.48% (MV)

### Casing Record:

Hole Size	Casing Size	Weight & Grade	Depth Set	Sxs Cmt	Cement Top
15"	10-3/4"	32.75#, H-40	171'	150 (177 ft3)	surface
9-7/8"	7-5/8"	26.4#, J-55	2208'		
		29.7#, N-80	2208-4091'	175 (336 ft3)	3200' (TS)
6-3/4"	5-1/2"	17#, J-55	1327'		
		15.5#, J-55	1327-5387'		
		17#, J-55	5387-8001'	380 (630 ft3)	
	4"	11.3#, J-55	7575-8336'	125 (148 ft3)	
	Assume 4", 11.	6#. J-55. lJ tubing iD=3.3	03"	, ,	

## **Tubing Record:**

Tubing Size 2-3/8"		<u>g Size</u> <u>Weight &amp; Grade</u> <u>Depth Set</u> 4.7#, J-55 EUE 8235'		BHA Otis 'X' Nipp	e @ 8221'	
Formation Tops:						
Ojo Alamo	3452'	Lewis	397 <b>0</b> '	Mancos	6223'	
Kirtland	3548'	Cliffhouse	5581'	Gallup	7029'	
Fruitland	3687'	Menefee	5683*	Greenhorn	7995'	
Pictured Cliff	s 3895'	Pt. Lookout	59 <b>85</b> '	Graneros	8054'	
				Dakota	8155'	

#### Logging Record:

GRS / I-ES / Depth Control / Temp Survey / Sonic

### Stimulation:

Perfs: 8084-94' w/2 SPF, 8115-20' w/4 SPF, 8223-33' w/2 SPF, 8275-80' w/4 SPF Frac'd w/56,500 gal wtr, 190 gal KCL, 3# FR-8/1000 gal, 60,000# 40/60 sand

#### **Workover History:**

01-18-66: Pulled 258 jts 2-1/16" 3.25# tubing due to excessive paraffin accumulation. Ran 262 jts (8225') 2-3/8" O.D. 4.7# EUE tubing landed @ 8235'

## **Production History:**

Latest Deliverability 88 MCFD <1 BOPD

Initial Deliverability 91 MCFD ISIP: 1932 (csg) 1705 (tbg)

Cums: 1084 MMCF 39814 BO

#### Transporter:

Oil/Condensate: Giant Gas: Williams