# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

	Sundry Notice	es and Reports on Wells		
		5.	Lease Number SF-079394	
1. Ty	pe of Well	6.	If Indian, All.	or
-	GAS	-	Tribe Name	-
2 <b>N</b> a	ume of Operator	7:	Unit Agreement N San Juan 27-5 Un	
2			Sair Odair 27-5 Or	110
1	RESOURCES OIL &	GAS COMPANY MEMBERS		
2 34	Idnose C Phone No. of Opensto		Well Name & Numb	
	dress & Phone No. of Operator O Box 4289, Farmington, NM 8		San Juan 27-5 U# API Well No. 30-039-06786	F35
4 Lc	cation of Well, Footage, Sec	., T, R, M (0)(1), (20)(1), (0)(1)	Field and Pool	
	20'FSL 990'FWL, Sec.33, T-27	Blanco MV/Blanco Pounty and State		
		Constraints of	Rio Arriba Co, N	1M
		CATE NATURE OF NOTICE, REPORT, OTHER	DATA	
ΤJ	pe of Submission	Type of Action		
	_X_ Notice of Intent	Abandonment Change of Pla		
•	Cubacana Banasa	Recompletion New Construct		
	Subsequent Report	Plugging Back Non-Routine F		
	Final Abandonment	Casing Repair Water Shut of		
	<del></del>	Altering Casing Conversion to X_ Other -	injection	
13.	Pictured Cliffs and according to the att	o the Mesaverde formation and comming Mesaverde formation of the subject we ached procedure and wellbore diagram oregoing is true and correct.	ell 2: 25	
Sign	space for Federal or State (	(JLD) Title Regulatory Administrator	TLW	
APPRO	VED BY /S/Duane W. Spencer TION OF APPROVAL, if any:	Title Date	FEB   0 1999	
Title 18 United 9	U.S.C. Section 1001, makes it a crime for any patates any false, fictitious or fraudulent statem	person knowingly and willfully to make to any department or a ments or representations as to any matter within its jurisdic	gency of the tion.	
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## San Juan 27-5 Unit #35

Lewis/Cliffhouse/Menefee Pay Add Procedure Unit M, Section 33, T27N, R05W

Lat: 36°-31.59396'/Long: 107°-22.13196'

The well is currently completed in the Pictured Cliffs and Point Lookout intervals. It is intended to add the Lewis, Cliffhouse, and Menefee intervals to this existing Mesaverde producer and commingle the Pictured Cliffs/Mesaverde production. The Cliffhouse and Menefee will be sand fracture stimulated in a single stage using 100,000 lbs 20/40 sand in slickwater, while the Lewis will be completed in a single stage with 200,000 lbs 20/40 sand in a 70Q 20lb linear gel.

- Inspect location and test rig anchors. Comply with all NMOCD, BLM, Forestry & BR rules 1. and regulations. Dig flowback pit or set flowback tank. Haul to location 3 its 2-7/8" N-80 tubing, 2-7/8" X 3-1/2" N-80 crossover, 5400', 3-1/2" N-80 frac string and 11-400 bbl frac tanks.
- 2. MIRU. Fill 400 bbl tanks w/ 3# biocide/tank & 2% KCL water. Put one load of fresh water in each tank before adding 20% concentrated 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, offset spool, and offset rams with flow tee and stripping head. Test operation of rams. NU blooie line and 2-7/8" relief line. Redress production wellhead as needed.
- TOOH with 1-1/4", 2.4 lb/ft EUE Pictured Cliffs production string set at 3206'. Sting out of 3. Model 'D' production packer at 3277' with 2-3/8", 4.7 lb/ft J-55 EUE tubing set at 5444'. 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 3277' and pluck packer. TOOH with packer.
- 4. PU and RIH with a 4-3/4" bit, 5-1/2" (15.5 lb/ft) casing scraper on the 2-3/8" tubing. Clean out to PBTD (~5510') with air/mist. Blow well at PBTD to check sand production rates. Make sure well is not making sand before TOOH. TOOH.
- 5. TIH with 5-1/2" CIBP, packer and 2-3/8" tubing. Set CIBP at 5270'. Release from CIBP and fill casing with ~ 50 bbls 2% KCL. Set packer just above CIBP. Pressure test CIBP to 3600 psi. Bleed off pressure. Release packer and PUH to 5230'. Spot 11 bbls 15% HCL across Cliffhouse/Menefee perforation interval (4812-5220'). 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

6. RU logging company. Run GR-CBL-CCL from PBTD til out of water. Evaluate CBL. Good cement bond must exist from PBTD to 3250' to continue with the Lewis portion of the procedure. Tie into liner top at 3295' for correlation.

#### **CLIFFHOUSE/MENEFEE:**

 NU wireline. Correlate openhole Schlumberger Log to GR-CBL-CCL. Perforate Cliffhouse/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).

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4812', 4838', 4859', 4860', 4863', 4869', 4894', 4896', 4898', 4900', 4906', 4908', 4928', 4930', 4932', 4934', 4936', 4938', 4948', 4950', 5006', 5008', 5058', 5060', 5160', 5162', 5166', 5212', 5218', 5220' (30 holes total)
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ND wireline company.

- 8. TIH with 5-1/2" packer, 3 joints 2-7/8" N-80 tubing, 2-7/8" X 3-1/2" N-80 crossover, and 3-1/2" N-80 frac string. Set packer at ~4600'.
- 9. RU stimulation company. Hold tailgate safety meeting. Pressure test surface lines to 7500 psi. Monitor annulus for indications of flow during the job. Breakdown Cliffhouse and Menefee perforations with 25 bbls 15% HCL. Drop 60 RCN 7/8" 1.3 specific gravity perf balls evenly spaced throughout job. Attempt to balloff to 3600 psi. Use same additives as in Step #5.
- 10. Bleed off pressure and release packer. Lower packer to 5230' to knock off perf balls. Reset packer at 4700'.
- 11. Maximum surface treating pressure is 6500 psi. Monitor annulus for indications of flow during the job. Fracture stimulate the Cliffhouse and Menefee with 100,000 lbs 20/40 Arizona sand in 2,738 bbls slickwater at 50 BPM. Average surface treating pressure will be 3,663 psi. If injection pressures allow, adjust sand schedule to increase 2.0 ppg stage. Estimated tubing and perforation friction will be 3,577 psi. Treat per the following schedule:

Stage	Water (gals)	Sand Volume (lbs)
Pad	15,000	
0.5 ppg	30,000	15,000
1.0 ppg	45,000	45,000
1.5 ppg	20,000	30,000
2.0 ppg	5,000	10,000
Flush (100' above top perf)	1,715	
Totals	116,715	100,000

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.
- 13. 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 5-1/2" packer. Redress packer as needed.

14. NU wireline. Set CIBP at 4600'

### **LEWIS:**

15. Correlate openhole Schlumberger Log to GR-CBL-CCL. Perforate Lewis 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).

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3719', 3723', 3738', 3742', 3747', 3804', 3810', 3862', 3867', 3955', 3963', 3973', 3987', 3994', 4145', 4159', 4163', 4167', 4191', 4280', 4296', 4302', 4308', 4326', 4352', 4357', 4424', 4428', 4485', 4489' (30 holes total)
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ND wireline company.

- 16. TIH with 5-1/2" packer, 3 joints 2-7/8" N-80 tubing, 2-7/8" X 3-1/2" N-80 crossover, and remaining 3-1/2" N-80 frac string. Set packer just above CIBP and pressure test to 3600 psi. Bleed off pressure. Release packer and PUH with packer to 4490'. Spot 19 bbls 15% HCL across the Lewis perforation interval (3719 to 4489'). Use the same additives as in Step #5. PUH and set packer at 3500'. If squeeze work was necessary prior to the Lewis completion, adjust acid spot volume and set packer in good cement bond.
- 17. RU stimulation company. Hold tailgate safety meeting. Pressure test surface lines to 7500 psi. Monitor annulus for indications of flow. Breakdown Lewis perforations with 25 bbls 15% HCL. Drop 60 RCN 7/8" 1.3 specific gravity perf balls evenly spaced throughout job. Attempt to balloff to 3600 psi. Use same additives as in Step #5.
- 18. Bleed off pressure. ND stimulation company. Release packer. Lower packer to 4500' to knock balls off perforations. PUH and re-set packer at 3600'. If squeeze work was necessary prior to the Lewis completion, set packer in good cement bond.
- 19. NU stimulation company. Maximum surface treating pressure is 6500 psi. Monitor annulus for indications of flow during the job. Fracture stimulate the Lewis with 200,000 lbs 20/40 Arizona sand in 2,173 bbls 70Q 20 lb linear gel at 50 BPM. Tag sand with 3 radioactive isotopes. Average surface treating pressure will be 6,106 psi. Perforation and tubing friction is estimated to be 4,819 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	151.1	
1.0 ppg	12,000	3,600	120.8	12,000
2.0 ppg	21,000	6,300	211.2	42,000
3.0 ppg	27,333	8,200	274.7	82,000
4.0 ppg	16,000	4,800	160.7	64,000
Flush (100' above top perf)	1,282	385	12.9	0
Totals	92,616	27,785	931	200,000

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

20. 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.

- 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.
- 22. TIH with 4-3/4" bit on 2-3/8" workstring and clean out to CIBP at 4600'. Monitor gas and water returns when applicable. **Take a "dirty" Pictured Cliffs/Lewis pitot gauge**. Drill out CIBP at 4600' when sand returns allow. Use a 10-12 BPH mist rate while drilling CIBP.
- 23. Clean out to CIBP at 5270'. Blow well throughout Lewis, Cliffhouse, and Menefee. Monitor gas, water and sand returns when applicable. **Take a "dirty" Pictured Cliffs/Lewis/Cliffhouse/Menefee pitot gauge.** Drill out CIBP at 5270' when sand returns allow. Use a 10-12 BPH mist rate while drilling CIBP.
- 24. Continue to CO to PBTD (5510') with air. Blow well at PBTD to check water rates. If needed, continue to blow well for clean up. When water rates are below 3 BPH and there is no sand production, TOOH.
- 25. TIH with 5-1/2" packer and 2-3/8" tubing. Set packer at 3650' (Within 100' of top Mesaverde perforation at 3719'). Run Mesaverde only 3 hour production test through separator using a back pressure of 150 psi. This is necessary for determining Lewis/Cliffhouse/Menefee pay add contribution for determining accurate commingling allocations. Release packer and TOOH.
- 26. 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 Pictured Cliffs/Lewis/Cliffhouse/Menefee/Point Lookout pitot gauge. Land tubing at 5474'. ND BOP. NU WH. Pump off expendable check. RDMO. Contact Production Operations for well tie-in.

27. RU Pro-Technics. Run After-Frac log across Lewis (3719-4489'). RD Pro-Technics

Recommended: Approved: Puriling Superintendent

Approved Taylon (//3/9)

Contact:

Jennifer Dobson 599-4026 (work) 564-3244 (home) 324-2461 (pager)

# San Juan 27-5 Unit #35

## Unit M, Section 33, T27N, R5W Rio Arriba County, NM

Lat: 36° - 31.59396'/Long: 107° - 22.13196'

## **Current Schematic**

## **Proposed Schematic**

