UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

	Sundry Not	ices and Reports on Wells	-
		5. Lease Numbe : SF-078207	_
1. 1	ype of Well GAS	6. If Indian, a	All. or
		Unit Agreem	ent Nam
∠. N	ame of Operator	MAR 1 5 1999 19	
	BURLINGTON RESOURCES OIL		
	23	TOTAL COMPANY	Number
3. A	ddress & Phone No. of Opera PO Box 4289, Farmington, NM	king #1	
	10 Box 4209, Tarmington, Mil	30-045-0938	
4. L	ocation of Well, Footage, S		_
9	90'FNL 890'FEL, Sec.22, T-3		
		11. County and San Juan Co	
			-
	CHECK APPROPRIATE BOX TO IN ype of Submission	DICATE NATURE OF NOTICE, REPORT, OTHER DATA Type of Action	
•	_X_ Notice of Intent	Abandonment Change of Plans	
		Recompletion New Construction	
	Subsequent Report	Plugging Back Non-Routine Fracturing	
	Final Abandonment	Casing Repair Water Shut off Altering Casing Conversion to Injection	
		TILLOCK TING CONTING CONVCENTOR CO IN LECETION	
	_	_X_ Other -	
		X Other -	_
13.	Describe Proposed or Comp	_X_ Other -	-
13.	Describe Proposed or Comp	_X_ Other -	-
13.	It is intended to restimu	_X_ Other - leted Operations late and add pay to the subject well according to	-
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13.	It is intended to restimu the attached proce	_X_ Other - leted Operations late and add pay to the subject well according to edure and wellbore diagram.	
	It is intended to restimu the attached process	Late and add pay to the subject well according to edure and wellbore diagram. OTO FARE 2: 28 foregoing is true and correct.	
	It is intended to restimu the attached process	Late and add pay to the subject well according to edure and wellbore diagram. PH 2: 28 Foregoing is true and correct. (MQ) Title Regulatory Administrator Date 3/2/99	
14. Sign	It is intended to restimu the attached process	Leted Operations late and add pay to the subject well according to edure and wellbore diagram. OTO FAIR 14 PM 2: 28 foregoing is true and correct. (MQ) Title Regulatory Administrator Date 3/2/99 TLW	
14. Sign	It is intended to restimu the attached process the	Leted Operations late and add pay to the subject well according to edure and wellbore diagram. OTO FAIR 14 PM 2: 28 foregoing is true and correct. (MQ) Title Regulatory Administrator Date 3/2/99 TLW	

NMOCD

Pictured Cliffs Restimulation/Cliff House – Menefee payadd 990' FNL, 890' FEL

Unit A Sec. 22, T-30 R-10W San Juan County, NM

Latitude: 36 ° 48.13' Longitude: 107° 51.90'

Summary:

The King #1 is a Pictured Cliffs Restimulation and a Cliff House – Menefee Payadd. This well was originally drilled in 1952 and was open-hole completed w/ 1700 qts SNG in the Mesaverde. The open hole was redrilled and a liner was set in 1956 across the Mesaverde. The Point Lookout was perforated and stimulated with 51,300 lbs. sand and water, and the Cliff House and the Menefee were omitted. In 1960, the Pictured Cliffs was recompleted with 35,000 lbs. sand and water and was dualed with the Point Lookout. The Cliff House and the Menefee will be added to the King #1 in two stages and the Pictured Cliffs will be restimulated. The Cliff House will be treated using a 20# linear gel and 120,000# sand, and the Menefee with be treated with a 20# linear gel and 100,000# sand. Then, the Pictured Cliffs will be restimulated as a "Type A" well with 70 Q foam and 200,000# sand. The well will be commingled and placed on production.

- Comply with all NMOCD, BLM and BR regulations. Conduct daily safety meetings for all personnel on location. Notify BR regulatory (Peggy Bradfield 326-9727) and the appropriate Regulatory Agency prior to pumping any cement job and after CBL is run. If an unplanned cement job is required, approval is required before the job can be pumped. If verbal approval is obtained, document the approval in Dims. Allow adequate notice prior to the pump time for the Agency to witness the cementing operation.
- Inspect location and wellhead and install rig anchors prior to rig move.
- Construct blow pit.

Warning: Cliff House may produce H₂S.

- 1. MOL, hold safety meeting and RU. Insure all safety equipment is strategically located and functioning properly. NU relief lines to blow pit. Set 11 400 BBL frac tanks and fill w/ 2% KCL. Blow well down and kill well with 2% KCL water as necessary. ND wellhead and NU BOP, stripping head and blooie line. Test BOP.
- 2. TOOH w/ 94 jts 1-1/4" 2.33# tubing and lay down. Release the 5-1/2" Guiberson Shorty Packer set at 4468' (To release packer: If set in compression, pick straight up. If set in tension, set straight down.) TOOH w/ 166 jts. 2-3/8" tbg set at +/- 5008' and lay down (Rubber Joint @2936'). Note: the well has not been pulled since 1960. If the tubing is stuck, free point, chemical cut, and recover the remaining tubing and packer. Inspect tubing and replace as necessary.
- 3. PU 4-3/4" bit on 2-3/8" 4.7# tubing and CO to PBTD @ 5258'. **Determine if the Pictured Cliffs formation is making sand**. TOOH. RIH w/ 5-1/2" CIBP and wireline set at ± 5135'. RU wireline, run CBL/GR/CCL from 5135' to 4420'. Correlate to the attached GR-Neutron Log Hot Shot logs to Michele Quisel and to Drilling.
- 4. TIH w/ 5-1/2" pkr on 2-3/8" 4.7# tubing and set pkr @ ± 5110. Pressure Test CIBP to 3800 psi. Release and spot 300 gals 15% HCI**. TOOH.
- 5. Perforate 23 holes w/ 3-1/8" HSC-3125-306T gun w/ 12 gram charges, 17.48" penetration and 0.29" perf diameter. Correlate to CBL/GR/CCL. Perforate bottom up at:

5093', 89', 86', 41', 38', 35', 32', 24', 22', 00', 4957', 51', 49', 46', 43', 24', 4895', 92', 82', 61', 52', 48', 45'

Rig down wireline.

Pictured Cliffs Restimulation/Cliff House – Menefee payadd 990' FNL, 890' FEL

Unit A Sec. 22, T-30 R-10W San Juan County, NM

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Stimulate – 1st Stage Menefee

6. PU and TIH w/ 5-1/2" Packer, 23 jts of 2-7/8" 6.4# N-80 and 3-1/2" 9.3# N-80 frac string. RU Stimulation Company. Set packer @ ± 4700'. Hold pre-job safety meeting. Pressure test surface lines to 6000 psi. Breakdown to maximum bottomhole pressure of 3800 psi. Breakdown perforations w/ 1000 gal. 15% HCL.** Drop 46 -- 7/8" 1.1 SG RCN balls. Ball-off to maximum bottom hole pressure of 3800 psi. Record breakdown pressure and ISIP. Prepare to fracture stimulate. Release pkr and knock balls off perforations. Reset pkr. @ 4700'.

** All acid to contain the following additives/1000 gal.:

2 gal. CI-22

corrosion inhibitor

5 gal Ferrotrol-300L

iron control

1 gal Flo-back 20

surfactant

0.5 gal Clay Master-5C

clay control

7. Fracture stimulate in 0.5 to 3.0 ppg stages @ 40 BPM constant downhole rate with 64,187 gal. of 20# linear gel and 100,000# 20/40 mesh sand. Frac to be tagged w/ 3 RA tracers. When sand concentration begins to drop, call flush. Flush to top perf @ 4845'. Maximum bottomhole treating pressure is 3800 psi (80% of burst). Estimated friction pressure is 2420 psi @ 40 BPM. Maximum Surface Treating Pressure is 5000 psi.

	Sand	Stage	Stage	Stage	Slurry	
	Conc	Sand	Fluid	Slurry	Rate	
Stage	ppg	lbs	gals	gals	bpm	
Pad	0	0	6,500	6,500	40	
2	0.5	5,000	10,000	10,228	40	
3	1	15,000	15,000	15,684	40	
4	2	25,000	12,500	13,640	40	
5	3	55,000	18,333	20,841	40	
Flush			1,854	1,854	40	
		Total	Total	Total	Ave.	
		100,000	64,187	68,747	40	

- 8. Record ISIP, 5, 10, and 15 minute shut-in pressure. Release packer and TOOH.
- 9. TIH w/ 5-1/2" CIBP, on-off tool, and 5-1/2" packer. Set CIBP ± 4780' to ± 4770'. Set packer and pressure test CIBP @ 4780' to 3800 psi. Release packer and spot 250 gals 15% HCI**. TOOH.

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Warning: Cliff House may produce H₂S.

10. Perforate 22 holes w/ 3-1/8" HSC-3125-306T gun w/ 12 gram charges, 17.48" penetration and 0.29" perf diameter. Correlate to GR/CBL/CCL. Perforate bottom up:

> 4728', 24', 14', 10', 01', 4692', 75', 62', 56', 51', 35', 28', 25', 12', 06', 00', 4595', 78', 73', 67', 58', 49'

Rig down wireline.

Stimulate - 2nd Stage Cliff House

11. PU and TIH w/ 5-1/2" Packer, 11 jts of 2-7/8" 6.4# N-80 and 3-1/2" 9.3# N-80 frac string. RU Stimulation Company. Set packer @ + 4430'. Hold pre-job safety meeting. Pressure test surface lines to 6000 psi. Breakdown to maximum bottomhole pressure of 3800 psi. Breakdown perforations w/ 1000 gal. 15% HCL.** Drop 44 -- 7/8" 1.1 SG RCN balls. Ball-off to maximum bottom hole pressure of 3800 psi. Record breakdown pressure and ISIP. Prepare to fracture stimulate. Release pkr and knock balls off perforations. Reset pkr. @ 4430'.

** All acid to contain the following additives/1000 gal.:

2 gal. CI-22

corrosion inhibitor

Ferrotrol-300L 5 gal

iron control

1 gal Flo-back 20 surfactant

0.5 gal Clay Master-5C

clay control

12. Fracture stimulate in 0.5 to 3.0 ppg stages @ 40 BPM constant downhole rate with 80,230 gal. of 20# Linear Gel and 120,000# 20/40 mesh sand. Frac to be tagged w/ 3 RA tracers. When sand concentration begins to drop, call flush. Flush to top perf @ 4549'. Maximum bottomhole treating pressure is 3800 psi (80% of burst). Estimated friction pressure is 2100 psi @ 40 BPM. Maximum Surface Treating Pressure is 5000 psi.

	Sand	Stage	Stage	Stage	Slurry
	Conc	Sand	Fluid	Slurry	Rate
Stage	ppg	ibs	gals	gals	bpm
Pad	0	0	8,500	8,500	40
2	0.5	5,000	10,000	10,228	40
3	1	25,000	25,000	26,140	40
4	2	30,000	15,000	16,368	40
5	3	60,000	20,000	22,736	40
Flush		0	1,730	1,730	40
		Total	Total	Total	Ave.
		120,000	80,230	85,702	40

Record ISIP, 5, 10, and 15 minute shut-in pressure. Release packer and TOOH. 13.

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- 14. TIH w/ 7" RBP and 7" packer in tandem on 2-3/8" tubing and set RBP @ ± 3100'. Set packer @ ± 3080' and pressure test CIBP to 3400 psi. Release packer and spot 150 gals 15% HCI**. TOOH.
- 15. Perforate 48 holes w/ 4" HSC-4000-316 gun w/ 19 gram charges, 21.55" penetration and 0.34" perf diameter. Correlate to GR/CBL/CCL. Perforate bottom up w/ 2 SPF: 3042'-3018' Rig down wireline.

Restimulate Pictured Cliffs

- 16. PU and TIH w/ 7" Packer on 3-1/2" 9.3# N-80 frac string. RU Stimulation Company. Set packer @ ± 2985'. Hold pre-job safety meeting. Pressure test surface lines to 6000 psi. Breakdown to maximum bottomhole pressure of 3400 psi. Breakdown perforations w/ 750 gal. 15% HCL.** Record breakdown pressure and ISIP.
- 17. Release and reset @ ± 2800'. Pressure test surface lines to 6000 psi. Breakdown to maximum bottomhole pressure of 3400 psi. Breakdown perforations w/ 750 gal. 15% HCL.** Drop 100 -- 7/8" 1.1 SG RCN balls. Ball-off to maximum bottom hole pressure of 3400 psi. Release pkr and knock balls off perforations. Reset pkr. @ 2780'. Prepare to fracture stimulate.

** All acid to contain the following additives/1000 gal.:

2 gal. CI-22

corrosion inhibitor

5 gal Ferrotrol-300L

iron control

1 gal Flo-back 20

surfactant

0.5 gal Clay Master-5C

clay control

18. Fracture stimulate in 1.0 to 4.0 ppg stages @ 35 BPM constant downhole rate with 17,412 gal. of 30# linear gel, 636,000 SCF N2, and 200,000# 20/40 mesh sand. Frac to be tagged w/ 3 RA tracers. When sand concentration begins to drop, call flush. Flush to top perf @ +/- 2935'. Maximum bottomhole treating pressure is 3400 psi (80% of burst). Estimated friction pressure is 2582 psi @ 35 BPM. Maximum Surface Treating Pressure is 5000 psi.

Stage	BH Sand Conc. ppg	Sand <u>Mesh</u>	Stage Sand <u>Ibs</u>	BH Rate bpm	BH Foam Qual.	Clean Foam Volume gals	Clean Liquid Volume gals	Stage Slurry Volume gals	Slurry Rate <u>bpm</u>	Nitrogen Rate scf/min	Stage N2 <u>mscf</u>
Pad			0	35	70%	12,000	900	900	15.0	23,626	33.8
2	1	20/40	2,000	35	70%	2,000	600	690	16.5	22,596	22.5
3	2	20/40	4,000	35	70%	2,000	600	781	17.9	21,652	22.5
4	3	20/40	6,000	35	70%	2,000	600	871	19.2	20,783	22.4
5	4	20/40	188,000	35	70%	47,000	14,100	22,601	20.4	19,982	527.1
Flush			0	35	45%	1,107	612	612	27.6	15,095	8.0
			Total lbs.	Avg. Rate	Avg. Qual. 65%	Total Gallons 66,107	Total Gallons 20,112	Total Gallons 29,155	Avg. Rate	Avg. N2 Rate 19,477	Total mscf

Pictured Cliffs Restimulation/Cliff House – Menefee payadd 990' FNL, 890' FEL

Unit A Sec. 22, T-30 R-10W San Juan County, NM

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- 19. Record ISIP, 5, 10, and 15 minute shut-in pressure. Release packer, TOOH, and lay down. Flow well back as per attached flow back schedule.
- 20. TIH w/ retrieving tool on 2-3/8" tubing and CO to RBP at ± 3100'. When well is sufficiently clean (less than 2 BWPH and a trace of sand), obtain 3-hour 200 psi back pressure test of the Pictured Cliffs. This test is necessary to obtain an accurate allocation for the Pictured Cliffs production. Retrieve RBP @ 3100'. TOOH.
- 21. PU 4-3/4" bit on 2-3/8" tubing and CO to CIBP @ 4780' and DO w/ minimum mist rate of 12 BPH. CO to CIBP @ 5135' and DO w/ minimum mist rate of 12 BPH. CO to PBTD @ 5258'. When well is sufficiently clean, (less than 2 BPH and a trace of sand) TOOH and lay down bit.
- 22. TIH w/ 23 jts 2-3/8" tubing, 5-1/2" packer, and remaining 2-3/8" tubing, set the 5-1/2" packer @ ± 4450' and obtain a 3-hour 200 psi back-pressure test of the Mesaverde up the tubing. This test is necessary to obtain an accurate allocation for the Mesaverde production.
- PU and rabbit in tubing. TIH with one joint of 2-3/8", 4.7#, J-55 tubing w/ expendable check, seating nipple, then the remaining 2-3/8" production tubing. Land tubing @ ± 5210'.
- 24. ND BOP's, NU wellhead. Pump off expendable check. If necessary, swab well to kick off. RD and MOL. Place well on production.
- 25. RU slickline, and run after frac log.

Approve:	Approve: PUBL 2/24/99
Team Leader	Drilling Superintendent
Recommend: Alicha i S. Causal Production Engineer	

VENDORS:

 Wireline:
 Basin
 327-5244

 Tools:
 Baker
 327-3266

 RA Tagging
 Protechnics
 326-7133

Michele Quisel Home 564-9097 Office 324-6162 Pager 326-8196

990' FNL 890' FEL Unit A Sec. 22, T-30 R-10W San Juan County, New Mexico

KB 6327 GL 6319 Current Proposed Formation Tops 10-3/4" Ojo Alamo 1615 32.75# Kirtland 1740 170 sx Fruitland Coal 2603 TOC circ. **Pictured Cliffs** 2933 229 Lewis 3088 229' Cliffhouse 4555 Menefee 4732 7" 23# Point Lookout 5145 452 sx TOC ~2430 100 ~2430 ~2430' **Pictured Cliffs: Pictured Cliffs:** 2935'-43', 2947'-53', 2957'-63', 2935'-43', 2947'-53', 2957'-63', Tubing: 2967'-71' w/ 2 SPF 2967 -71' w/ 2 SPF 166 jts 2-3/8" J-55 @ 5221' Frac'd w/ 25,200 gal water and Frac'd w/ 25,200 gal water and SN @ 5189 35.000# sand 35.000# sand Perfd Jt @ 5190 Rubber JI @ 2936 Restimulated w/ 94 jts 1-1/4" 2.33# J-55 200,000# sand and 70Q @ 2974 SN @ 2941 Additional Perfs: Perfd Jt @ 2942' 3018'-3042' w/ 2 SPF 4414 4414' 5-1/2" J-55 15.5# Liner 4468' 5-1/2" Guiberson 4414'-5293' **Shorty Packer** 315 sx 4489 4489 TOC 4414' **Cliff House:** 5093', 89', 86', 41', 38', 35', 32', 24', 22', 00', 4957', 51', 49', 46', 43', 24', 4895', 92', 82', 61', 52', 48', 45' frac w/ 120,000# sand and 30#gel Menefee: 4728', 24', 14', 10', 01', 4692', 75', 62', 56', 51', 35', 28', 25', 12', 06', 00', 4595', 78', 73', 67', 58', 49' Frac w/ 100,000# sand and 30# gel **Point Lookout:** 5148' - 58' 5191'-5209', 5225'-35'. 5243'-5255' w/ 4 SPF Frac'd w/ 55,160 gal water and Tubing: 51,300# sand 2-3/8" J-55 @ ± 5230" 5258 5258 5293 5293' PBTD = 5258' TD = 5322'