## State of New Mexico

Ener	gy, Minerals and Natura Oi <b>l Conservati</b> c		artment
	Sundry Notices and R	deports on Wells	
1. Type of Well GAS		<b>API</b> 5.	# (assigned by OCD) 30-045-11454 Lease Number
2. Name of Operator		. 6. 7.	E-3150-1
BURLINGTON RESOURCES	& GAS COMPANY	8.	Burroughs Com A
3. Address & Phone No. of Opera PO Box 4289, Farmington, NM		9.	2
4. Location of Well, Footage, S 1650'FNL, 1600'FEL, Sec. 16,			Elevation:
Type of Submission _X_ Notice of Intent Subsequent Report Final Abandonment	Type of Ac Abandonment Recompletion Plugging Back Casing Repair Altering Casing X Other - Pay add	Change of Plow Construction Non-Routine Water Shut of	tion Fracturing ff
13. Describe Proposed or Comp.  It is intended to add pay to the attached pr			ject well according
		U	CEIVED EC 3 1 1997
			COM. DIV.

Ella huld (SCOpps) Regulatory Administrator\_December 29, 1997\_\_\_\_ (This space for State Use)

Approved by DRIGINAL SIGNED BY ERNIE BUSCH Title DEPUTY OIL & GAS INSPECTOR, DIST, #3 Date JAN - 5 1998

### Burroughs Com A #2 Mesa Verde Payadd Procedure G 16 32N 10W

San Juan County, NM Latitude: 36 Deg., 59.25 Min Longitude: 107 Deg., 52.99 Min.

#### Summary:

The subject well is a 1998 Mesa Verde payadd in 7-5/8" casing and a 5-1/2" liner section. This well was originally drilled in 1958 and was completed in the Point Lookout and Menefee interval. The Point Lookout interval was perforated and stimulated w/ approximately 55,000 lbs. total sand and 50,000 gal. total slickwater. The Menefee interval was perforated and stimulated w/ approximately 30,000 lb.s total sand and 30,000 gal. total slickwater and placed on production. The subject well will capture the bypassed Cliffhouse and Menefee pay and will be perforated and fracture stimulated in one (1) stage with 92,137 gal of 20# crossed-linked gel and 165,000# 20/40 mesh sand. The well will then be cleaned-up, tubing landed in the Mesa Verde and placed on production.

- Comply to 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.
- 1. MOL, hold safety meeting and RU completion rig. Insure all safety equipment is strategically located and functioning properly. NU relief lines to blow pit. Set eight (8) 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 7-1/16" 3M BOP, stripping head and blooie line. Test BOP.
- 2. TOOH w/ approximately 180 jts. 2-3/8" Mesa Verde tubing set at +/- 5655' and stand back. Inspect tubing and replace bad tubing as necessary.
- 3. If tbg. appears in good condition, RU wireline company and RIH w/ 5-1/2" gauge ring. If tbg. is scaled up, proceed to step #4.
- 4. PU 4-3/4" bit on 2-3/8" 4.7# J-55 workstring and CO to PBTD @ 5700'. TOOH and lay down bit. Stand back workstring.
- 5. RU wireline. RIH and wireline set CIBP @ 5300'. Load hole w/ 2% KCL (205 bbls). Pressure up csg. to 1000 psi w/ rig pump and run GR\CCL\CBL under pressure from 5290' to bottom of surface csg. @ 250'.\*\* Send logs to office immediately and perforations and setting depths will be supplied for the Cliffhouse and Menefee interval only. A squeeze procedure will be provided if TOC does not cover the Fruitland and Ojo Alamo interval (refer to step #13). Release pressure off csg. POOH w/ CBL. RIH w/ CNL and log from 5290' to 4290'. POOH w/ CNL. RD wireline company.
  - \*\* NOTE: Tie into liner top @ 3370'
- 6. RU wireline company to perforate approximately 26 holes with 3-1/8" HSC gun w/ 17 gram charges, 13" penetration and 0.29 perf diameter. Perforate top down in the Menefee and Cliffhouse interval (+/- 5290' +/- 4765'). Perforations will be provided after reviewing logs. RD wireline company.

# Burroughs Com A #2 Mesa Verde Payadd Procedure G 16 32N 10W San Juan County, NM

Latitude: 36 Deg., 59.25 Min Longitude: 107 Deg., 52.99 Min.

7. TIH w/ 5-1/2" fullbore pkr., 45 jts. 2-7/8" EUE 8rd 6.5# N-80, 2-7/8" EUE 8rd X 3-1/2" 8rd N-80 changeover swage and approximately 125 jts. 3-1/2" 9.3# N-80 frac string and set @ 5280'. Pressure test CIBP set @ 5300' to 3000 psi. Release pkr. and TOOH w/ approximately 19 jts. 3-1/2" 9.3# N-80 frac string and reset pkr. @ 4600'. RU stimulation company. Hold pre-job safety meeting. Load annulus before breakdown w/ 140 bbl. and keep loaded during frac. Pressure annulus to 500 psi and monitor annulus pressure during breakdown and frac. Pressure test surface lines to 8500 psi. Breakdown perforations @ 4 BPM w/ 2% KCL. After perforations breakdown, pump 1000 gal. 15% HCL acid.\*\* Pump acid @ 20-25 BPM to ensure all perforations are open. Breakdown to maximum bottomhole pressure of 3800 psi. Record breakdown pressure and ISIP. Prepare to fracture stimulate. Maximum surface treating pressure is 7500 psi.

\*\* 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

- 8. Fracture stimulate w/ 2% KCL base frac fluid 20# crossed-linked gel in 1.0 to 4.0 ppg stages @ 35 BPM constant downhole rate with 92,137 gal. of 20# crossed-linked gel and 165,000# 20/40 mesh sand. When sand concentration begins to drop, call flush. Flush to top perf @ +/- 4765'\*\*. Refer to frac schedule enclosed.
  - \*\* After 75% of flush volume has been pumped (1600 gal.), cut rate to 10 BPM. If well goes on a vacuum, shut down. Otherwise, flush to top perf @ +/- 4765'.
- 9. Shut in frac valve and record ISIP, 5, 10 and 15 shut-in pressure. RD stimulation company.
- 10. After well cleans up and pressures allow, release pkr. and TOOH laying down approximately 106 jts. 3-1/2" 9.3# N-80, 2-7/8" EUE 8rd X 3-1/2" 8rd N-80 changeover swage, 45 jts. 2-7/8" EUE 8rd 6.5# N-80 frac string and 5-1/2" fullbore pkr.
- 11. TIH w/ notched collar and 2-3/8" 4.7# J-55 workstring and clean up to CIBP @ +/- 5300' with air/mist. When well is sufficiently clean ( less than 1 BWPH), gauge the Menefee and Cliffhouse interval for one (1) hour. TOOH w/ notched collar and 2-3/8" workstring. Lay down notched collar. Obtain an accurate pitot gauge for the Menefee and Cliffhouse interval.
- 12. TIH w/ 4-3/4" bit on 2-3/8" workstring and mill up CIBP @ +/- 5300'
  - \*\*NOTE: If tbg. was scaled-up, as indicated in step #2 of procedure, acid wash the existing Menefee and Point Lookout perforations w/ treatment specified by service company.
- 13. Perform squeeze procedure as needed to ensure TOC covers Fruitland and Ojo Alamo.
- 14. TIH with one joint of 2-3/8", 4.7#, J-55 tubing w/ expendable check, magnetic fluid conditioner tool, seating nipple, then the remaining 2-3/8" production tubing. Land tubing @ 5600'.
- 15. ND BOP's, NU single tubing hanger wellhead. Pump off expendable check. Obtain final pitot up tubing. If well will not flow on it's own, make swab run to seating nipple. If swab run is not necessary, run a broach on slickline to ensure that the tubing is clear. Set bumper spring in seating nipple and drop plunger. RD and MOL. Place well on plunger lift type production.

### **Burroughs Com A #2** Mesa Verde Payadd Procedure G 16 32N 10W San Juan County, NM

Latitude: 36 Deg., 59.25 Min Longitude: 107 Deg., 52.99 Min.

Recommend:

**VENDORS**:

Wireline: Schlumberger 325-5006 Stimulation: Halliburton 325-3575 Packer: Arrow Completion Systems 326-5141 Bridge Plug: **Arrow Completion Systems** 326-5141 Magnetic Fluid Conditioner Tool: Mag well 1-800-488-1278

Plunger lift: PCS

326-4239

Steve Campbell Home 325-8218 Office 326-9546 Pager 564-1902 **Bob Goodwin** Home 599-0992 Office 326-9713 Pager 564-7096 Jennifer Dobson Home 564-3244 Office 326-9708 Pager 324-2461 Mike Pippin Home 327-4573 Office 326-9848 Pager 324-2559

### Stimulation Procedure Burlington Resources Oil and Gas CO.

		•	Formation and
eneral Information		Well Configuration	Stimulation Data
ell Name:	Burroughs Com A #2	Casing: 5-1/2" 15.5#	600 FT Max Treating Pressure 7500 psi
cation:	G 16 32N 10W	Tubing: 2-7/8" 6.5# N-80	1,395 FT Frac Gradient: 0.5 psi/ft
		Tubing: 3-1/2" 9.3# N-80	3305 FT
mation:	Cliffhouse and Menefee	Cap: 0.0238 0.00579	9 0.00870 BH Temp: 150 deg. F
ndors		PBTD 5300 ft	Vol. to: (gals) Antic. Treating Rate: 35 BPM
nulation:	Halliburton	Top Perf: 4765 ft	PBTD: 2,147 Antic. BH Treating Pres: 2,514 psi
gging:	Protechnics	Bot Perf: 5290 ft	Top Perf: 1,612 Antic. Surf Treating Pres: 6,525 psi
		Midpoint: 5028 ft	Btm perf: 2,137 Percent Pad: 28%
id:	20# Crossed-linked	Perforations	Net Pay: 352 ft
te:	w/ Sand Wedge	1 spf 0.29	9 " holes   lb prop/net ft pay: 469 lb/ft
		25 holes 17	7 * penetration Job Duration: 67.8 min
			Dedfinion

Perf friction
Total friction(Incl. PF)

812 psi 6,189 psi

### imulation Schedule

Sand Data			Fluid Data			Rate and Time Data			Comments				
			Sand	Stage	Cum	Stage	Cum	Stage	Cum	Slurry	Stage	Cum	
		Sand	Conc	Sand	Sand	Fluid	Fluid	Slurry	Slurry	Rate	Time	Time	
Tag	Stage	<u>Mesh</u>	ppg	bs	lbs	gals	gals	gals	gals	bpm	<u>min</u>	min	
	Pad	N/A	0.0	0	0	25,000	25,000	25,000	25,000	35.0	17.0	17.0	
No	2	20/40	1.0	15,000	15,000	15,000	40,000	15,684	40,684	35.0	10.7	27.7	
No	3	20/40	2.0	30,000	45,000	15,000	55,000	16,368	57, <b>052</b>	35.0	11.1	38.8	
No	4	20/40	3.0	60,000	105,000	20,000	75,000	22,736	79, <b>788</b>	35.0	15.5	54.3	
No	5	20/40	4.0	60,000	165,000	15,000	90,000	17,736	97,524	35.0	12.1	66.3	
	Flush	N/A	0.0	0	165,000	2,137	92, <b>13</b> 7	2,1 <b>37</b>	99,661	35.0	1.5	67.8	2% KCL Water
				Total	lb/ft	Total		Total		Ave.	Total		
				165,000	469	92,137		99,661		35.0	67. <b>8</b>		

olumes and Additives								Equipment		
ater Volume=	92,137	treat +	4,607	excess =	96,743	gallons	(BR)	Tanks:	7.0	x 400 bbl frac tanks(supplied by BR).
ater Volume=	2,194	treat +	110	excess =	2,303	bbls	(BR)	Filled w/	2,303	bbls 2% KCl water (supplied by BR).
ıid Volume:		2,303	bbi desigr	ed treating vo	lume			Sand Chief		
./40 Arizona Sai	nd:	165,000	lbs					Blender.		
								Fluid Pump	s as requi	ired.
id: 0.18#/ E	E-6 (Bioc	ide)							·	
2% KCL	water (file	tered if ne	cessary).							
5 gal/l/l	LGC-8 (Li	iquid Gel	concentrate	<b>e</b> )						
2 gal/lvl	BC-140 (E	Buffer & C	rosslinker)							
1 gal/l/l	Lo Surf 30	00 (Surfac	tant)							
0.25 - 1.	0 #/M SP	(Breake	r)							
0.12 gal	/sx (Sar	nd Wedge	)							
adioactive 1	agging	as foll	ows:							
4 mCi Ir-192, 0.3										$\wedge$
								1	1	Cea C 12/19/97

omments and Special Instructions

AXIMUM ALLOWABLE BOTTOMHOLE TREATING PRESSURE IS 3800 PSI.

a<del>o dewn easir</del>ia via frae valve.

old safety meeting with everyone on location before pressure testing surface lines, ressure test surface lines to 8500 psi

roduction Engineer: Steve Campbell

(Work) 326-9546 (Home) 325-8218 (Pager) 564-1902

### **Burroughs Com A #2 Pertinent Data Sheet**

Location: 1650' FNL, 1600' FEL, Unit G, Section 16, T32N, R10W, San Juan County, New Mexico

**Latitude**: 36° - 59.25'

**Longitude:** 107° - 52.99'

Field: Blanco Mesa Verde

Initial Potential: 7838 MCF/D

Elevation: 6431' GL

6441' KB

TD: 5754'

**PBTD:** 5700'

**Spud Date:** 08/28/58

**Completed:** 09/29/58

**DP No:** 50190A

Lease: B-11127-3-NM

GWI: 100.00%

NRI: 81.8125% **Prop#:** 012587700

Casing/Liner Record:

Hole Size	Casing Size	Weight & Grade	<b>Depth Set</b>	Cement	Top/Cement
15"	10-3/4"	32.75# Spiral W	eld 250'	300 sx	Circ. Cmt.
9-7/8"	7-5/8"	26.4# J-55	3412'	200 sx	2100' (TS)
6-3/4"	5-1/2" Liner	15.5# J-55	3370-5750'	150 sx	3370' (TS)

**Tubing Record:** 

<b>Tubing Size</b>	Weight & Grade	<b>Depth Set</b>	Number of its.
2-3/8"	4.7#	5655'	180

Formation Tops:	Estimated	Cliffhouse	4765'
Ojo Alamo	2285'	Menefee	5160'
Fruitland	2794'	Point Lookout	5481'
Pictured Cliffs	3180'	Mancos	5710'
Huorfanita Bantanita	20001		

Huerfanito Bentonite 3880

Logging Record: ES, GRL, Temp., Ind.

**Stimulation:** 9/18/58 - Perfs in Point Lookout - 5504'-5540', 5553'-5610', 5622'-5632'. Frac w/

50,000 gal. water and 55,000 lbs. 20/40 sand. Perf in Menefee - 5328'-5344', 5354'-5368'. Frac w/ 30,000 gal. and 30,000 lbs. 20/40 sand.

Workover History: None

Pipeline: EPNG

### **Burroughs Com A #2**

### Unit G, Section 16, T32N, R10W San Juan County, NM

