# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT



	21 to 1	
Sundry Notices and Reports on Wells 15 PM 1:42		
. Type of Well GAS	070 FAGNARATON, 5NM	Lease Number SF-078509 If Indian, All. of Tribe Name
. Name of Operator		Unit Agreement Na San Juan 32-9 Uni
BURLINGTON	GAS COMPANY A MAR 1 9 1933	
. Address & Phone No. of Operator PO Box 4289, Farmington, NM	8.	Well Name & Number San Juan 32-9 U#4 API Well No. 30-045-11220
Location of Well, Footage, Sec 890'FSL 890'FWL, Sec.30, T-32-	., T, R, M 10. N, R-9-W, NMPM	Field and Pool Blanco Mesaverde County and State San Juan Co, NM
	CATE NATURE OF NOTICE, REPORT, OTHER	DATA
Type of Submission _X_ Notice of Intent	Type of Action  Abandonment Change of Pla Recompletion	
Subsequent Report	Plugging Back Non-Routine B	Fracturing Ef
Final Abandonment	Altering Casing Conversion to _X_ Other -	Injection
	s pay to the Mesaverde formation of the he attached procedure and wellbore di	
Gigned Will Maria (This space for Federal or State	Title Regulatory Administrator Date	e 3/11/99 TLW
CONDITION OF APPROVAL, if any:  "title 18 U.S.C. Section 1001, makes it a crime for any	Title Date  person knowingly and willfully to make to any department or sements or representations as to any matter within its jurisdictions.	MAR   7   1999

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## San Juan 32-9 Unit #40 Lewis Shale Payadd Procedure M 30 32N 09W

San Juan County, NM Latitude: 36 Deg., 59.28 Min Longitude: 107 Deg., 52.35 Min.

#### Summary:

The subject well is a 1999 Lewis Shale payadd in 5-1/2" casing. This well was drilled in 1956 and was completed in the Cliffhouse, Menefee, and Pt. Lookout intervals. The Pt. Lookout interval was stimulated w/ approximately 50,000 lbs. total sand and 47,200 gal. total slickwater. The Cliffhouse/ Menefee interval was stimulated w/ approximately 60,000 lbs. total sand and 55,100 gal. total slickwater and placed on production. The Lewis will be perforated and fracture stimulated in one (1) stage with 139,998 total gal. of 75Q N<sub>2</sub> foamed "Clearfrac" fluid and 200,000 lbs. total 20/40 mesh sand. The new stimulation technique will test the viability of "Clearfrac" and a single stage stimulation within the Lewis Shale interval. The well will then be cleaned-up, tubing landed in the Mesaverde 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 <u>any</u> cement job and after CBL is run. If an unplanned cement job is required, <u>approval is required before the job can be pumped</u>. <u>If verbal approval is obtained, document the approval in Dims</u>. 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 four (4) 400 BBL frac tank and fill w/ 4% KCL. Blow well down and kill well w/ 4% KCL water as necessary. ND wellhead and NU 7-1/16" 3M BOP, stripping head and blooie line. Operationally test BOP.
- 2. TOOH w/ approximately 187 jts. 2-3/8" Mesaverde tubing set at +/- **5837**' and stand back. Inspect tubing and replace bad tubing as necessary\*\*.
  - \*\*NOTE: If existing tbg. is scaled-up, contact production engineer and a scale analysis will be run. This will determine if we will pump acid down the 2-3/8" 4.7# J-55 workstring and acid wash perforations across the Point Lookout and Cliffhouse interval.
- 3. RU wireline. RIH w/ 5-1/2" gauge ring and check wellbore for obstructions to PBTD @ **5855'**. POOH.\*\*
  - \*\*NOTE: If obstructions are encountered, PU 4-3/4" bit and 5-1/2" 15.5# csg. scraper on 2-3/8" 4.7# J-55 workstring and CO to PBTD @ 5855'. TOOH
- 4. TIH w/ CIBP and 2-3/8" 4.7# J-55 workstring and tubing set CIBP @ +/- 5020'\*\*. Load hole down tubing w/ 20 bbls 10% Acetic Acid + 5% NH₄CL\*\*\* for perforating. Load hole w/ 79 bbls 4% KCL for pressure testing. TOOH w/ workstring and standback. RU wireline company w/ packoff and pump-in tee. RIH w/ GR/CCL/CBL and log from 5020-4150'. POOH w/ GR/CCL/CBL logging tool. RIH w/ TDT and log from 5020-4150'. POOH w/ TDT logging tool. TIH w/ 5-1/2" 15.5# wellhead isolation tool and 4" frac valve. RU stimulation company. Pressure test surface lines to 4850 psi. Pressure test CIBP to 3850 psi (80% of burst in 5-1/2" 15.5# csg). RD stimulation company.
  - \*\* Tie into Elec. log.

\*\*\* All Acid to contain the following additives/ 1000 gal:

1000 gal 10% Acetic Acid
2 gal MSA II corrosion inhibitor
5% NH₄CL clay control

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- 5. RU wireline company w/ packoff and pump-in tee. RIH w/ CCL\*\* on top of perforating guns. Perforate the entire Lewis Shale interval with 3-1/8" Hollow Steel Carrier Select Fire guns w/ HSC-3125-306T charges. These are 12 gram charges with a 0.30" hole and 17.48" penetration. Shoot approximately 50 holes top down. Perforations will be determined after TDT logging run. RD wireline company.
  - \*\* Tie into new TDT log.
- 6. RU stimulation company. Pressure test surface lines to **4850** psi. Breakdown perforations @ 20-25 BPM w/ 4% KCL (approximately 10 BBL). Displace w/ 600 gal. of 10% Acetic Acid + 5% NH₄CL\*\* dropping one-hundred (100) 7/8" 1.1 SG RCN balls evenly displaced through acid. Displace acid w/ approximately 119 BBL of 4% KCL to bottom perforation. Balloff to maximum pressure of **3850** psi (80% of burst in 5-1/2" 15.5# csg). Record breakdown pressure, ball action and ISIP.
  - \*\* All Acid to contain the following additives/ 1000 gal:

1000 gal10%Acetic Acid2 galMSA IIcorrosion inhibitor5%NH₄CLclay control

- 7. RU wireline w/ packoff and pump-in tee. RIH w/ junkbasket and knock balls off perforations. POOH w/ junkbasket and record number of balls recovered and number of hits. RD wireline.
- 8. RU stimulation company to frac down wellhead isolation tool and 4" frac valve. Hold pre-job safety meeting with all personnel on location. Pressure test surface lines to **4850** psi prior to stimulation.
- 9. Fracture stimulate in 0.5 to 3.0 ppg stages @ 40 BPM constant downhole rate with 139,998 gal. of 75Q N<sub>2</sub> foamed "Clearfrac" fluid and 200,000 lbs. 20/40 mesh sand. When sand concentration begins to drop, call flush. Flush to top perf. Refer to frac schedule enclosed (tracer schedule enclosed in frac schedule). Maximum bottomhole treating pressure is 3850 psi (80% of burst in 5-1/2" 15.5# csg). Estimated friction pressure is approximately 1015 psi @ 40 BPM. Maximum surface treating pressure is 3850 psi.
- 10. Record ISIP, 5, 10 and 15 shut-in pressure. Shut-in frac valve. RD stimulation company. Install flowback line above frac valve. Lay flowback line to dual-choke manifold and pit. Begin flowback after stimulation company has rigged down from frac valve. Open well to pit on accordance to flowback schedule listed in the table below. Do not shut well in during flowback. When schedule dictates a larger choke size, open ball valve upstream of adjustable choke and open adjustable choke on manifold to pre-determined size listed in table and begin flowing through adjustable choke. Close ball valve upstream of positive flow bean and change out flow bean to next larger size in table. Open ball valve upstream of positive flow bean and begin flowing. Close ball valve upstream of adjustable choke and close adjustable choke.

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16/64" Choke	From Shut-in - Until 2/3 of flush volume has	
	been recovered (Approximately 79 BBL).	
10/64" Choke	Approximately 2 hrs.	
12/64" Choke	Approximately 2 hrs.	
14/64" Choke	Approximately 2 hrs.	
16/64" Choke	Approximately 3 hrs.	
18/64" Choke	Approximately 3 hrs.	
20/64" Choke	Approximately 3 hrs.	
22/64" Choke	Approximately 3 hrs.	
24/64" Choke	Approximately 3 hrs.	
32/64" Choke	Approximately 3 hrs.	

- 11. After well cleans up and pressures allow, TOOH w/ 5-1/2" wellhead isolation tool and 4" frac valve and TIH w/ 4-3/4" flat mill on 2-3/8" 4.7# J-55 workstring and clean-up to CIBP @ +/- 5020' with air/mist. When well is sufficiently clean, gauge the Lewis interval for one (1) hour. Obtain an accurate pitot gauge for the Lewis interval.
- 12. Drill out CIBP @ +/- **5020**' w/ 4-3/4" flat mill on 2-3/8" workstring. Use minimum mist rate of 10-12 BPH. CO to PBTD @ **5855**'\*\*. TOOH w/ 2-3/8" 4.7# J-55 workstring and stand back. Lay down 4-3/4" flat mill.
  - \*\*NOTE: If tbg. was scaled-up, acid wash the existing Cliffhouse/ Menefee and Point Lookout perforations w/ treatment specified by service company.
- 13. Broach in tubing on sandline. TIH w/ one joint of 2-3/8" 4.7# J-55 tubing w/ expendable check, seating nipple, then remaining 2-3/8" production tubing. Land tubing @ **5805**'.
- 14. ND BOP's, NU single tubing hanger wellhead. Pump off expendable check. Obtain a 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, RD and MOL.

Approve:

Team Leader

Approve;

rilling Superintendent

Recommend:

we Capbel 3/2/9:

Production Engineer

**VENDORS:** 

Wireline:Schlumberger325-5006Stimulation:Dowell325-5096Packer:Arrow Completion Systems326-5141Bridge Plug:Arrow Completion Systems326-5141Flat Mill:Arrow Completion Systems326-5141

 Steve Campbell
 Home 325-8218
 Office 326-9546
 Pager 564-1902

 Glen Christiansen
 Home 327-5089
 Office 326-9733
 Pager 324-7562

 Hans Dube
 Home 564-9401
 Office 326-9555

# San Juan 32-9 Unit #40

Unit M, Section 30, T32N, R09W San Juan County, NM

### **Proposed Schematic Current Schematic** Cmt Top @ Surf (circ) 10-3/4" Csg. Set at 177'. Cmt'd with 125 sx. 7-5/8" 26.4# J-55 set Formation Tops at: @ 3733' w/ 250 Ojo Alamo N/A TOC @ 3200' (TS). Pictured Cliffs 3471' 186 jts H. Bentonite 4179' 2-3/8" EUE 8rd Cliffhouse 5399' tbg. set @ 5805' Menefee 5459' Pt. Lookout 5770' 5-1/2" 15.5# J-55 set @ 5911'. TOC @ 3400' (TS). Cmt w/ 300 Proposed Lewis perfs @ 4185'-5050' Perf Cliffhouse @ Perf Cliffhouse/ 5423'-5486' Menefee @ 5423'-5486' 187 JTS. 2-3/8" EUE 8rd Tbg.Set at 5837'. Perf Pt. Lookout @ 5774'-5842' Perf Pt. Lookout @ 5774'-5842'

PBTD @ 5855'

TD @ 5920'

PBTD @ 5855'

TD @ 5920'