

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

Sundry Notices and Reports on Wells

2001 MAR -6 PM 2:16

1. Type of Well  
GAS

2. Name of Operator

**BURLINGTON  
RESOURCES**

OIL &amp; GAS COMPANY

3. Address &amp; Phone No. of Operator

PO Box 4289, Farmington, NM 87499 (505) 326-9700

4. Location of Well, Footage, Sec., T, R, M

945' FNL, 1045' FEL, Sec. 23, T-29-N, R-10-W, NMPM

5. Lease Number  
SF-0769586. If Indian, All. or  
Tribe Name

7. Unit Agreement Name

8. Well Name & Number  
Hare #199. API Well No.  
30-045-0121008/2110. Field and Pool  
Blanco MV/Basin DK11. County and State  
San Juan Co, NM

## 12. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OTHER DATA

## Type of Submission

☒ Notice of Intent☐ Subsequent Report☐ Final Abandonment

## Type of Action

☐ Abandonment☒ Recompletion☐ Plugging Back☐ Casing Repair☐ Altering Casing☒ Other - commingle☐ Change of Plans☐ New Construction☐ Non-Routine Fracturing☐ Water Shut off☐ Conversion to Injection

## 13. Describe Proposed or Completed Operations

It is intended to recomplete the subject well to the Mesaverde formation and commingle the Mesaverde/Dakota formations according to the attached procedure and wellbore diagram.

## 14. I hereby certify that the foregoing is true and correct.

Signed [Signature] Title Regulatory Supervisor Date 3/6/01

TLW

(This space for Federal or State Office use)

APPROVED BY [Signature] Title [Signature] Date JUL 17

CONDITION OF APPROVAL, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

NMOC

K

District I  
PO Box 1980, 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, Minerals & Natural Resources Department

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

Form C-102  
Revised February 21, 1994  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-045-81210		2 Pool Code 72319/71599		3 Pool Name Blanco Mesaverde/Basin Dakota	
4 Property Code 7091		5 Property Name Hare			6 Well Number 19
7 OGRID No. 14538		8 Operator Name Burlington Resources Oil & Gas Company			9 Elevation 5753' GR

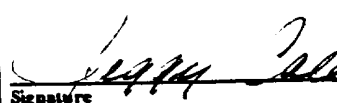
10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	23	29N	10W		945'	North	1045'	East	San Juan

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
12 Dedicated Acres N/320		13 Joint or Infill		14 Consolidation Code		15 Order No.			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<div>16</div> <div>945'</div> <div>1045'</div> <div>23</div> <div>Original plat from Ernest V. Echohawk, 6-28-62.</div>				<div>17 OPERATOR CERTIFICATION</div> <div>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</div> <div></div> <div>Signature Peggy Cole</div> <div>Printed Name Regulatory Supervisor</div> <div>Title</div> <div>Date 3-6-01</div>	
				<div>18 SURVEYOR CERTIFICATION</div> <div>I hereby certify that the well location shown on this plat was plotted from field notes of actual survey made by me or under my supervision, and that the same is true and correct to the best of my belief.</div> <div>Date of Survey</div> <div>Signature and Seal of Professional Surveyor:</div> <div>Certificate Number</div>	

**Hare #19**  
**Mesaverde Re-completion & Mesaverde / Dakota Commingle**  
**945' FNL, 1045' FEL**  
**Unit A, Sec. 23, T-29-N, R-10-W**  
**San Juan County, NM**

**Project Summary:**

The Hare #19 was originally completed in the Dakota formation in 1962. Current Dakota production is  $\pm 40$  MCFPD with cumulative production of 2690 MMCF.

**Completion Procedure:**

The following procedure details the proposed operations to re-complete the wellbore in the Point Lookout and Menefee intervals of the Mesaverde formation, and then commingle with the existing Dakota production.

- Comply with all NMOCD, BLM and BR regulations. Conduct daily safety meetings for all personnel on location. **Notify BR regulatory (Peggy Cole 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 frac tanks and fill with 2% KCl water. Blow well down and kill with 2% KCl water as necessary.
  2. ND wellhead. NU BOP, stripper head and bleed line. Test BOP.
  3. TOOH w/ 2-3/8", 4.7#, J-55 production string set at 6531' (206 jts). Inspect tubing and replace as necessary. Stand back 2-3/8" tubing.
  4. MI wireline company. Run 3-3/4" gauge ring to check TD (4-1/2" 9.5# csg drift – 3.965"). If gauge ring tags above 6570', PU 3-3/4" casing mill on the 2-3/8", 4.7# J-55 tubing. Clean out to PBTD of 6730' (existing Dakota perms 6570' – 6688' OA). **Blow well at PBTD to check sand production rates. Make sure well is not making sand before TOOH.** TOOH.
  5. Set 4-1/2" CIBP @ 6540'. TIH w/ 4-1/2" packer on 2-3/8", 4.7#, J-55 tubing. Load hole with 2% KCl water and set packer @ 6490'. Pressure test CIBP to 3700 psi (~85% of burst for 4-1/2", 9.5#, J-55 casing).
  6. Bleed off pressure. Release packer and pull up to 4514' and spot 4 Bbls of 15% HCl acid\*\* across Point Lookout perf interval (4420' – 4514' OA). TOOH. \*\* 15% HCl acid to contain 2 gals of corrosion inhibitor per 1000 gals of acid.
  7. Under a lubricator, run CBL-GR-CCL log from 4600' to 3600'. <sup>(ok CCL)</sup> Hold 1000 psi on casing while running bond log. Bleed off pressure.
  8. Evaluate CBL. Good bond must exist across the proposed Mesaverde perforation intervals (Point Lookout 4420' – 4514' OA; Menefee 3940' – 4230' OA) to isolate the stimulation treatments. Good bond and isolation above the Menefee perforations is also required to prevent the "wet" Massive Cliff House (3781' – 3810') from communicating with the wellbore. (Should CBL indicate poor bond or isolation, contact Drilling Manager or Production Engineer to discuss modification of planned perforation depths).

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**San Juan County, NM**

9. Install MB wellhead isolation tool. Pressure test CIBP and 4-1/2" casing to 3700 psi (~85% of burst for 4-1/2", 9.5#, J-55 casing).

**POINT LOOKOUT:**

10. NU wireline company's perforating guns. Correlate CBL / GR log with attached openhole log section and perforate the **Point Lookout** interval with a select fire HSC gun with HSC-3125-302T / 10.0 gram Owen charges; 0.29" Entry hole; 16.64" penetration in concrete. Shoot 30 holes at the following depths:

4420	4422	4424	4426	4428	4430	4432	4434	4436	4438
4440	4458	4460	4462	4464	4466	4468	4470	4472	4474
4476	4478	4480	4482	4484	4486	4508	4510	4512	4514

RD wireline company.

11. RU stimulation company. Hold safety meeting. Pressure test surface lines to 4700 psi.
12. Breakdown Point Lookout perforations with 1200 gals 15% HCl acid\*\*. Drop 60 RCN 7/8" 1.3 specific gravity perf balls evenly spaced throughout job. Attempt to balloff. Record ISIP. **Maximum surface treating pressure for Breakdown and Ball Off is 3700 psi** (~85% of burst for 4-1/2", 9.5#, J-55 casing). \*\*15% HCl acid to contain 2 gals of corrosion inhibitor per 1000 gals of acid.
13. NU wireline company. Under lubricator, RIH with junk basket to recover perf balls (4-1/2" 9.5# csg drift – 3.965"). Run basket over perms several times to ensure maximum ball recovery. POOH and ND wireline company.
14. NU stimulation company. Hold safety meeting. Pressure test surface lines to 4700 psi.
15. Fracture stimulate the Point Lookout with 60,000 lbs 20/40 Arizona sand in 63,000 gals of slickwater at 50 BPM. Tag sand with 3 isotopes. **Maximum surface treating pressure during Fracture Treatment is 3700 psi** (~85% of Burst for 4-1/2", 9.5#, J-55 casing). Average surface treating pressure is estimated to be 2262 psi @ 50 BPM. Estimated tubing and perforation friction will be 1963 psi. Treat per the following schedule:

Stage	Water (gals)	Sand Volume (lbs)
Pad	9,000	
0.5 ppg	15,000	7,500
1.0 ppg	18,000	18,000
1.5 ppg	15,000	22,500
2.0 ppg	6,000	12,000
Flush (100' above top perf)	2,908	
<b>Totals</b>	<b>65,908</b>	<b>60,000</b>

Slow rate during flush. Calculate displacement to spot 10 Bbls of 15% HCl acid\*\* across Menefee perf interval (3940' – 4230' OA). If well is on vacuum near end of frac job, cut flush as necessary to avoid overflushing. \*\* 15% HCl acid to contain 2 gals of corrosion inhibitor per 1000 gals of acid.

16. Record ISIP, 5, 10, and 15 minute shut-in pressure. ND stimulation company.

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**San Juan County, NM**

17. NU wireline company. Under a lubricator, RIH with CIBP and set @ 4300'.
18. ND wireline. Pressure test CIBP and 4-1/2" casing to 3700 psi (~85% of burst 4-1/2" 9.5# J-55 casing).

**MENEFEE:**

19. NU wireline company's perforating guns. Correlate CBL / GR log with attached openhole log section and perforate the **Menefee** interval with a select fire HSC gun with HSC-3125-302T / 10.0 gram Owen charges; 0.29" Entry hole; 16.64" penetration in concrete. Shoot 30 holes at the following depths:

3940	3942	3944	3946	3948	3950	3995	3997	3999	4001
4003	4036	4038	4040	4042	4044	4078	4080	4082	4084
4086	4128	4130	4132	4220	4222	4224	4226	4228	4230

RD wireline company.

20. RU stimulation company. Hold safety meeting. Pressure test surface lines to 4700 psi.
21. Breakdown Menefee perforations with 2000 gals 15% HCl acid\*\*. Drop 60 RCN 7/8" 1.3 specific gravity perf balls evenly spaced throughout job. Attempt to balloff. Record ISIP. **Maximum surface treating pressure for Breakdown and Ball Off is 3700 psi** (~85% of burst for 4-1/2", 9.5#, J-55 casing). \*\*15% HCl acid to contain 2 gals of corrosion inhibitor per 1000 gals of acid.
22. NU wireline company. Under lubricator, RIH with junk basket to recover perf balls (4-1/2" 9.5# csg drift – 3.965"). Run basket over perms several times to ensure maximum ball recovery. POOH and ND wireline company.
23. NU stimulation company. Hold safety meeting. Pressure test surface lines to 4700 psi.
24. Fracture stimulate the Menefee with 100,000 lbs 20/40 Arizona sand in 105,000 gals of slickwater at 50 BPM. Tag sand with 3 isotopes. **Maximum surface treating pressure during Fracture Treatment is 3700 psi** (~85% of Burst for 4-1/2", 9.5#, J-55 casing). Average surface treating pressure is estimated to be 2591 psi @ 50 BPM. Estimated tubing and perforation friction will be 1909 psi. Treat per the following schedule:

Stage	Water (gals)	Sand Volume (lbs)
Pad	15,000	
0.5 ppg	25,000	12,500
1.0 ppg	30,000	30,000
1.5 ppg	25,000	37,500
2.0 ppg	10,000	20,000
Flush (100' above top perf)	2,582	
<b>Totals</b>	<b>107,582</b>	<b>100,000</b>

Slow rate during flush. If well is on vacuum near end of frac job, cut flush as necessary to avoid overflushing.

25. Record ISIP, 5, 10, and 15 minute shut-in pressure. ND stimulation company.
26. Flow back through choke manifold & monitor flow. Flow @ 20 bbl/hr. or less, if sand is observed.

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**San Juan County, NM**

27. When pressure allows, TIH w/ 3-3/4" casing mill on 2-3/8", 4.7#, J-55 tubing and clean out to CIBP @ 4300'. Blow well clean and monitor fluid rates until well is sufficiently clean (<5 BWPH). **Take pitot gauges for Menefee only interval.**
28. Drill out CIBP @ 4300' and clean out to CIBP @ 6540'. Blow well clean and monitor fluid rates until well is sufficiently clean (<5 BWPH), **Take pitot gauges for the combined Menefee and Point Lookout intervals.**
29. Drill out CIBP @ 6540' and clean out to PBTD of 6730' (Existing Dakota perms 6570' – 6688'). Blow well clean and monitor fluid rates until well is sufficiently clean (<5 BWPH), **Take pitot gauges for the combined Mesaverde and Dakota intervals.** TOOH.
30. TIH with an expendable check; S.N. w 1.78" ID; 1 jt. of 2-3/8", 4.7#, J-55 tubing; a 2' pup joint and half of the 2-3/8", 4.7#, J-55 production string. Run a broach on sand line to insure the tubing is clear.
31. TIH with remaining 2-3/8" tubing and broach this tubing. Replace any bad joints. CO to PBTD with air/mist. PU above perforations. Alternate blow and flow periods, making short trips for clean up as necessary.
32. Land tubing @ ±6640'. Pump off check valve. Flow up tubing. **Take final water rates and pitot gauge for gas rates.**
33. ND BOP & NU wellhead & tree. During workover operations the reservoir may be charged with air. As a result of introducing air to the wellbore, excess oxygen levels may be in the reservoir and/or wellbore. Contact the Lease Operator to discuss the need for determining oxygen levels prior to returning the well to production.
34. Rig down & release rig. (Post frac tracer log will be run through tubing after the rig is off location).

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**San Juan County, NM**

Approve:   
 Team Leader

Approve:  3-2-01  
 Drilling Manager

Recommend:   
 Production Engineer

Regulatory: Sundry Notice Required  
 Yes ☒  
 No       

**Vendors:**

Stimulation: No Preference  
 Radioactive Tagging: ProTechnics 326-7133

 3-2-01

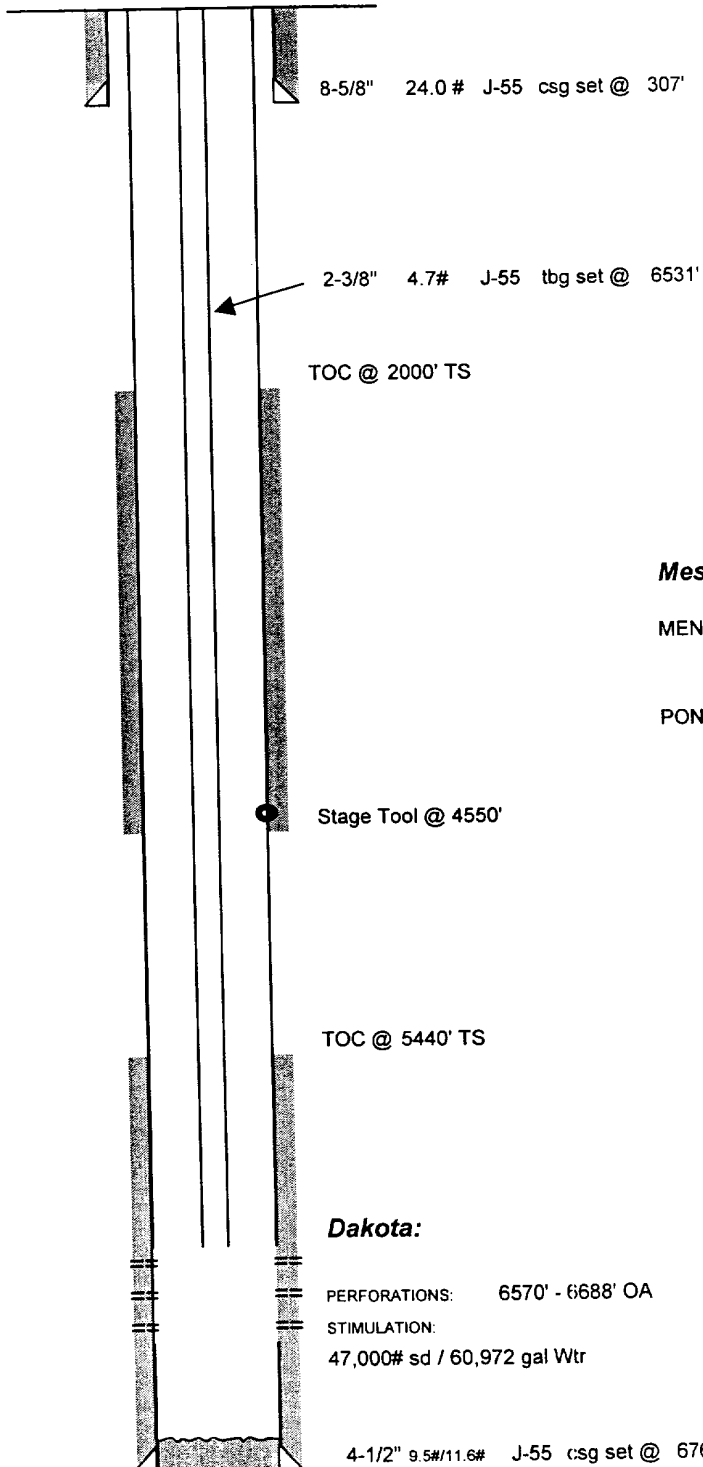
<b>Production Engineer:</b>	Randy Buckley	Office 326-9597	Pager 326-8820	Home 599-8136
<b>Lease Operator:</b>	Mike Gould		Cell 320-2509	Pager 326-8405
<b>Specialist:</b>	Terry Nelson		Cell 320-2503	Pager 326-8473
<b>Forman:</b>	Steve Florez	Office 326-3560	Cell 320-0029	Pager 326-8199

## Hare #19

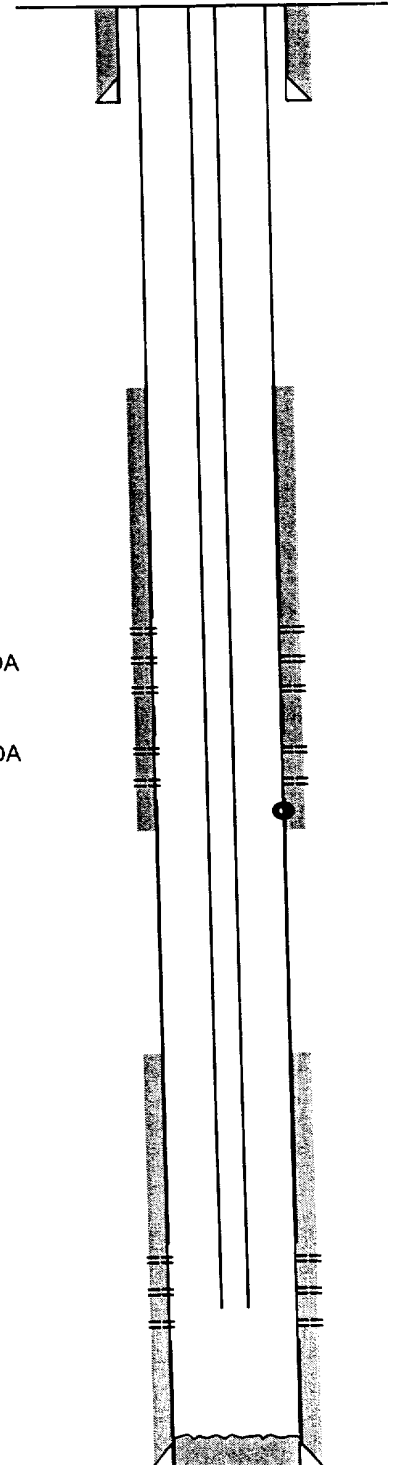
Unit A, Sec. 23, T-29-N, R-10-W  
San Juan County, New Mexico

### Wellbore Diagram

#### Pre-Work



#### Post-Work



#### Mesaverde Pay Add:

MENEFEE:  
3940' - 4230' OA

PONIT LOOKOUT:  
4420' - 4514' OA

TD: 6,762' PBTD: 6,730'