

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED

2001 NOV -7 PM 2:15

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work DRILL	5. Lease Number SF-078499A Unit Reporting Number	
1b. Type of Well GAS	6. If Indian, All. or Tribe	
2. Operator <b>BURLINGTON RESOURCES</b> Oil & Gas Company	7. Unit Agreement Name	
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	8. Farm or Lease Name Hardie E Well Number 280	
4. Location of Well 1785' FSL, 1670' FEL  Latitude 36° 40.4, Longitude 107° 41' 32" W	9. Field, Pool, Wildcat Otero Chacra/ Blanco MV/Basin DK 11. Sec., Twn, Rge, Mer. (NMPM) Sec. 9, T-28-N, R-8-W API # 30-045-30905	
14. Distance in Miles from Nearest Town 13 miles from Blanco	12. County San Juan	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 1670'	17. Acres Assigned to Well E/Cha-148.59, MV-297.8 <del>22.1</del> All	
16. Acres in Lease	18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease 1100'	
19. Proposed Depth 7395'	20. Rotary or Cable Tools Rotary	
21. Elevations (DF, FT, GR, Etc.) 6383' GR	22. Approx. Date Work will Start	
23. Proposed Casing and Cementing Program See Operations Plan attached	DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS"	
24. Authorized by: <u>[Signature]</u> Regulatory/Compliance Supervisor	Date <u>10-31-01</u>	

PERMIT NO.

APPROVAL DATE

APPROVED BY [Signature]

TITLE

AFM

DATE 2-10-03

Archaeological Report to be submitted

Threatened and Endangered Species Report to be submitted

NOTE: This format is issued in lieu of U.S. BLM Form 3160-3

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 presentations as to any matter within its jurisdiction.

OPERATOR

District II  
PO Drawer 00, Artesia, NM 88211-0719

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

Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

District III  
1000 Rio Brazos Rd., Aztec, NM 87410

District IV  
PO Box 2088, Santa Fe, NM 87504-2088

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-30905		*Pool Code 72319/82329		*Pool Name Blanco Mesaverde/Otero Chacra	
*Property Code 7089		*Property Name HARDIE E			*Well Number 20
*GRID No. 14538		*Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY LP			*Elevation 6383'

<sup>10</sup> Surface Location

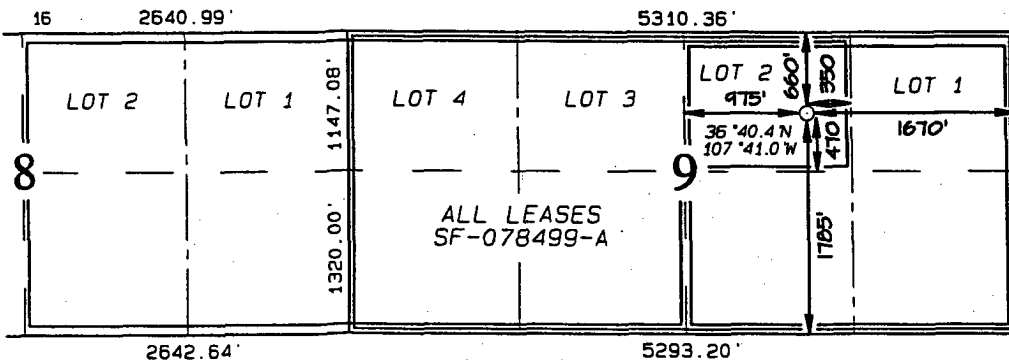
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	9	28N	8W		1785	SOUTH	1670	EAST	SAN JUAN

<sup>11</sup> 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

<sup>12</sup> Dedicated Acres Cha-SE/148.59 MV-S/297.8	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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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


<sup>17</sup> OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief

*Peggy Cole*  
Signature  
Peggy Cole  
Printed Name  
Regulatory Supervisor  
Title  
4-15-03  
Date

<sup>18</sup> SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

JUNE 29, 2001

Date of Survey

Signature and Seal of Registered Professional Surveyor

NEALE C. EDWARDS  
NEW MEXICO  
6857  
Professional Surveyor  
Certificate No. 6857

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

Sundry Notices and Reports on Wells

RECEIVED

1. Type of Well  
GAS

2003 APR 17 PM 2:31  
Lease Number  
NMSF-078499A

6. If Indian, All. or  
070 Farmington, NM  
Well Name

2. Name of Operator  
**BURLINGTON**  
RESOURCES OIL & GAS COMPANY LP

7. Unit Agreement Name

3. Address & Phone No. of Operator  
PO Box 4289, Farmington, NM 87499 (505) 326-9700

8. Well Name & Number  
Hardie E #2C

9. API Well No.  
30-045-30905

4. Location of Well, Footage, Sec., T, R, M  
1785' FSL, 1670' FEL, Sec.9, T-28-N, R-8-W, NMPM

10. Field and Pool  
Otero Cha/Blanco MV  
11. County and State  
San Juan Co, NM

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

Type of Submission

Type of Action

<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment	<input checked="" type="checkbox"/> Change of Plans
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion	<input type="checkbox"/> New Construction
<input type="checkbox"/> Final Abandonment	<input type="checkbox"/> Plugging Back	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> Water Shut off
	<input type="checkbox"/> Altering Casing	<input type="checkbox"/> Conversion to Injection
	<input checked="" type="checkbox"/> Other -	

13. Describe Proposed or Completed Operations

It is intended to change the name of the subject well to the Hardie E #2C from the Hardie E #2B. Please reinstate our Application for Permit to Drill, Deepen or Plug Back. It is our intention to complete this well in the Chacra and Mesaverde formations only.

Attached are a new C-102 plat, Operations Plan, Blow out Preventer Diagram and Production facilities diagram for the Chacra and Mesaverde formations.



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

Signed Peggy Cole (EG3) Title Regulatory Supervisor Date 4/15/03  
no

(This space for Federal or State Office use)

APPROVED BY Pete King Title Pete King Date 4/23/03  
CONDITION OF APPROVAL, if any:

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

OPERATOR

## OPERATIONS PLAN

**Well Name:** Hardie E #2C  
**Location:** 1785' FSL, 1670' FEL, Section 9, T-28-N, R-8-W  
San Juan County, New Mexico  
Latitude 36° 40.4, Longitude 107° 41.0  
**Formation:** Otero Chacra/Blanco Mesa Verde  
**Elevation:** 6383' GL

<u>Formation Tops:</u>	<u>Top</u>	<u>Bottom</u>	<u>Contents</u>
Surface	San Jose	1875'	
Ojo Alamo	1875'	2015'	aquifer
Kirtland	2015'	2570'	
Fruitland	2570'	2865'	gas
Pictured Cliffs	2865'	3005'	gas
Lewis	3005'	3465'	gas
Intermediate TD	3255'		
Huerfanito Bentonite	3465'	3825'	gas
Chacra	3825'	4530'	gas
Massive Cliff House	4530'	4620'	gas
Menefee	4620'	5100'	gas
Point Lookout	5100'		gas
Total Depth	5500'		

### Logging Program:

Mud logs - none  
Coring - none  
DST - none  
Open hole - none  
Cased hole - Gamma Ray, CCL, CBL - surface to TD

### Mud Program:

<u>Interval- MD</u>	<u>Type</u>	<u>Weight</u>	<u>Vis.</u>	<u>Fluid Loss</u>
0- 120'	Spud	8.4-9.0	40-50	no control
120- 3255'	LSND	8.4-9.0	30-60	no control
3255- 5500'	Air/Mist/N2*	n/a	n/a	n/a

Pit levels will be visually monitored to detect gain or loss of fluid control.

\*Nitrogen might be used in conjunction with or instead of air to prevent a down hole fire.

### Casing Program (as listed, the equivalent, or better):

<u>Hole Size</u>	<u>Measured Depth</u>	<u>Csg Size</u>	<u>Weight</u>	<u>Grade</u>
12 1/4"	0' - 120'	9 5/8"	32.3#	H-40
8 3/4"	0' - 3255'	7"	20.0#	J-55
6 1/4"	3155' - 5500'	4 1/2"	10.5#	J-55

**Tubing Program:** 0' - 5500' 2 3/8" 4.7# J-55

### BOP Specifications, Wellhead and Tests:

#### Surface to Intermediate TD -

11" 2000 psi minimum double gate BOP stack (Reference Figure #1). After nipple-up prior to drilling out surface casing, rams and casing will be tested to 600 psi for 30 minutes.

#### Intermediate TD to Total Depth -

11" 2000 psi minimum double gate BOP stack (Reference Figure #1). After nipple-up prior to drilling out intermediate casing, rams and casing will be tested to 1500 psi for 30 minutes.

**Completion Operations -**

7 1/16" 3000 psi double gate BOP stack (Reference Figure #3). After nipple-up prior to completion, pipe rams, casing and liner top will be tested to 2000 psi for 15 minutes.

**Wellhead -**

9 5/8" x 7" x 2 3/8" x 3000 psi tree assembly.

**General -**

- Pipe rams will be actuated once each day and blind rams will be actuated once each trip to test proper functioning.
- An upper kelly cock valve with handle available and drill string valves to fit each drill string will be available on the rig floors at all times.
- BOP pit level drill will be conducted weekly for each drilling crew.
- All BOP tests and drills will be recorded in daily drilling reports.
- Blind and pipe rams will be equipped with extension hand wheels.

**Cementing:**

9 5/8" surface casing - cement with 478 sx Class "B" cement with 1/4# flocele/sx and 3% calcium chloride (564 cu.ft. of slurry, 200% excess to circulate to surface). WOC 8 hrs. Test casing to 600 psi for 30 minutes.

Saw tooth guide shoe on bottom. Bowspring centralizers will be run in accordance with Onshore Order #2.

**7" intermediate casing -**

Lead w/317 sx 50/50 Class "G" TXI Liteweight cement with 2% calcium chloride, 2.5% sodium metasilicate, 10 pps Gilsonite and 0.5 pps Celloflake. Tail w/90 sx Class "G" 50/50 poz w/2% gel, 2% calcium chloride, 5 pps Gilsonite, 0.25 pps Celloflake (933 cu.ft. of slurry, 100% excess to circulate to surface.) WOC minimum of 8 hours before drilling out intermediate casing. If cement does not circulate to surface, a CBL will be run during completion operations to determine TOC. Test casing to 1500 psi for 30 minutes.

See attached alternative intermediate lead slurry.

7" intermediate casing alternative two stage: Stage collar 2270'. First stage: cement with w/196 sx Class "G" 50/50 poz w/2% gel, 2% calcium chloride, 5 pps gilsonite, 0.25 pps Celloflake. Second stage: 264 sx 50/50 Class "G"/TXI Liteweight with 2% calcium chloride, 2.5% sodium metasilicate, 10 pps Gilsonite, 0.25 pps Celloflake (933 cu.ft., 100% excess to circulate to surface).

Cement nose guide shoe on bottom with float collar spaced on top of shoe joint. Bowspring centralizers spaced every other joint off bottom, to the base of the Ojo Alamo at 2015'. Two turbolating centralizers at the base of the Ojo Alamo at 2015'. Bowspring centralizers spaced every fourth joint from the base of the Ojo Alamo to the base of the surface casing.

**4 1/2" Production Liner -**

Cement to cover minimum of 100' of 4 1/2" x 7" overlap. Lead with 438 sx 50/50 Class "G" Poz with 5% gel, 0.25 pps Celloflake, 5 pps Gilsonite (631 cu.ft.), 40% excess to cement 4 1/2" x 7" overlap). WOC a minimum of 18 hrs prior to completing.

Cement float shoe on bottom with float collar spaced on top of float shoe.