

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work DRILL	5. Lease Number NMNM-4453 Unit Reporting Number Farmington, NM
1b. Type of Well GAS	6. If Indian, All. or Tribe
2. 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. Farm or Lease Name Carson SRC 9. Well Number 101S
4. Location of Well 2420' FNL, 340' FWL Latitude 36° 50.32, Longitude 107° 18.57	10. Field, Pool, Wildcat Basin Fruitland Coal 11. Sec., Twn, Rge, Mer. (NMPM) E Sec. 1, T-30-N, R-5-W API # 30-039-27577
14. Distance in Miles from Nearest Town 26 miles from Gobernador	12. County Rio Arriba
15. Distance from Proposed Location to Nearest Property or Lease Line 340'	13. State NM
16. Acres in Lease	17. Acres Assigned to Well 267.14 N/2
18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease 20'	
19. Proposed Depth 3500'	20. Rotary or Cable Tools Rotary
21. Elevations (DF, FT, GR, Etc.) 6574' GR	22. Approx. Date Work will Start
23. Proposed Casing and Cementing Program See Operations Plan attached	
24. Authorized by: <u>Nancy D. Stemann</u> Senior Staff Specialist	<u>12-22-03</u> Date

PERMIT NO. 12-22-03 APPROVAL DATE MAR 17 2004
APPROVED BY David J. Markiewicz TITLE DATE

Archaeological Report attached

Threatened and Endangered Species Report attached

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.

NO HPA NOTIFICATION REQUIRED PER ORDER R-8767F

DRILLING OPERATIONS AUTHORIZED ARE
SUBJECT TO COMPLIANCE WITH ATTACHED
"GENERAL REQUIREMENTS".

NMOCD

This action is subject to technical and
procedural review pursuant to 43 CFR 3165.3
and appeal pursuant to 43 CFR 3165.4

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

*API Number 30-039- 27577		*Pool Code 71629	*Pool Name Basin Fruitland Coal
*Property Code 18492	*Property Name CARSON SRC		*Well Number 101S
*OGRID No. 14538	*Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY, LP		*Elevation 6574'

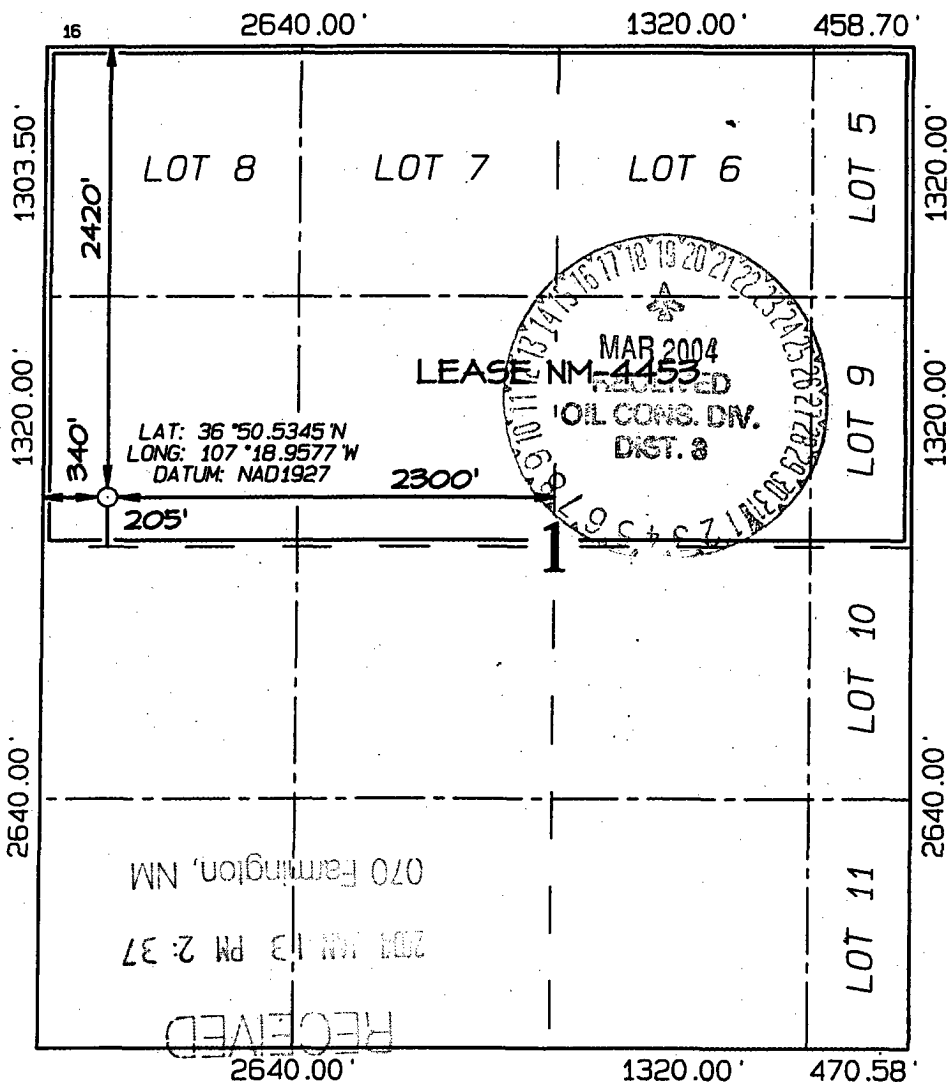
¹⁰ Surface Location

UL or lot no. E	Section 1	Township 30N	Range 5W	Lot Idh	Feet from the 2420	North/South line NORTH	Feet from the 340	East/West line WEST	County RIO ARriba
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¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idh	Feet from the	North/South line	Feet from the	East/West line	County
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¹² Dedicated Acres ETC-N/267.14	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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

¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief <i>Nancy Oltmanns</i> Signature Nancy Oltmanns Printed Name Senior Staff Specialist Title 12-22-03 Date
¹⁸ 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. Survey Date: OCTOBER 17, 2003 Signature and Seal of Professional Surveyor  <i>JASON C. EDWARDS</i> Certificate Number 15269

OPERATIONS PLAN

Well Name: Carson SRC #101S
Location: 2420' FNL, 340' FWL, Section 1, T-30-N, R-5-W
Latitude 36° 50.32, Longitude 107° 18.57
Rio Arriba County, NM
Formation: Basin Fruitland Coal
Elevation: 6574' GR

Formation:	Top	Bottom	Contents
Surface	San Jose	2650'	
Ojo Alamo	2650'	2860'	aquifer
Kirtland	2860'	2931'	gas
Fruitland	2931'	3276'	gas
Intermediate casing	3226'		
Top of Coal	3276'	3356'	
Base of Coal	3356'		
Pictured Cliffs	3361'		
Total Depth	3441'		

Logging Program:

Open hole - GR/RHOB from TD to 3226'
Mud log - TD to 3226'

Coring Program: none

Mud Program:

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Vis.</u>	<u>Fluid Loss</u>
0- 120'	Spud/Air/Air Mist	8.4-9.0	40-50	no control
120-3226'	Non-dispersed	8.4-9.0	30-60	no control
3226-3441'	Air/Mist			no control

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

<u>Hole Size</u>	<u>Depth Interval</u>	<u>Csg.Size</u>	<u>Wt.</u>	<u>Grade</u>
12 1/4"	0' - 120'	9 5/8"	32.3#	H-40
8 3/4"	0' - 3226'	7"	20.0#	J-55
6 1/4"	3226' - 3441'	open hole		

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

<u>Hole Size</u>	<u>Depth Interval</u>	<u>Csg.Size</u>	<u>Wt.</u>	<u>Grade</u>
12 1/4"	0' - 120'	9 5/8"	32.3#	H-40
8 3/4"	0' - 3226'	7"	20.0#	J-55
6 1/4"	3126' - 3441'	5 1/2"	15.5#	J-55

Tubing Program:

0' - 3441' 2 3/8" 4.7# J-55

Float Equipment: 9 5/8" surface casing - saw tooth guide shoe. Centralizers will be run in accordance with Onshore Order #2.

7" intermediate casing - guide shoe and self-fill float collar. Standard centralizers run every other joint above shoe. Two turbolizing type centralizers - one below and one into the base of the Ojo Alamo @ 2924'. Standard centralizers thereafter every fourth joint up to the base of the surface pipe.

Wellhead Equipment: 9 5/8" x 7" x 2 3/8" x 11" 3000 psi xmas tree assembly.

Cementing:

9 5/8" surface casing -

Pre-Set Drilled Cement with 23 sx Type I, II cement with 20% flyash mixed at 14.5 ppg, 1.61 cu ft per sack yield. (37 cu ft of slurry, bring cement to surface) Wait on cement for 24 hours for pre-set holes before pressure testing or drilling out from under surface.

Conventionally Drilled:

Cement with 80 sx Type III cement with 0.25 pps Celloflake, 2% CaCl. (113 cu ft of slurry, 200% excess, bring cement to surface) Wait on cement for 8 hrs for conventionally set holes before pressure testing or drilling out from under surface.

~~Waive the 6 hours WOC in lieu of 4 hours prior to NU of BOPE.~~ See Bhm General Requirements.

7" intermediate casing - lead w/283 sacks Premium Lite cement with 3% calcium chloride, 0.25 pps Celloflake, 5 pps LCM-1, 0.4% fluid loss, 0.4% sodium metasilicate. Tail with 90 sacks Type III cement with 1% calcium chloride, 0.25 pps Celloflake, 0.2% fluid loss (727 cu.ft., 50% excess to circulate to surface).

5 1/2" liner - will not be cemented if run.

Note: If open hole logs are run, cement volumes will be based on 25% excess over caliper volumes.

BOP and tests:

Surface to intermediate TD - 11" 2000 psi (minimum) double gate BOP stack (Reference Figure #1). Prior to drilling out surface casing, test BOP and casing to 600 psi/30 min.

Intermediate TD to Total Depth - 7 1/6" 2000 psi (minimum) double gate BOP stack (Reference Figure #2). Prior to drilling out intermediate casing, test BOP and casing to 1500 psi for 30 minutes; all pipe rams and casing to 1500 psi for 30 minutes each.

From surface to TD - choke manifold (Reference Figure #3).

Pipe rams will be actuated at least once each day and blind rams actuated once each trip to test proper functioning. An upper kelly cock valve with handle and drill string safety valves to fit each drill string will be maintained and available on the rig floor.

Additional information:

- The Fruitland Coal formation will be completed.
- Anticipated pore pressure for the Fruitland is 500 psi.
- This gas is dedicated.
- The north half of Section 1 is dedicated to this well.

Drilling Engineer:

Jim McCauley

Date:

12-22-2003