UNITED STATES DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT**

	BUREAU OF LAND MANAGEME	NT /ton .
	APPLICATION FOR PERMIT TO DRILL, DEEPEN	I, OR PLUG BACK
la.	Type of Work DRILL	5. Lease Number SF-078134 Unit Reporting Number
lb.	Type of Well GAS APR 2000 RECEIVED	6. If Indian, All. or Tribe
2.	Operator BURLINGTON RESOURCES Oil & Gas Company	7. Unit Agreement Name
3.	Address & Phone No. of Operator	8. Farm or Lease Name
	PO Box 4289, Farmington, NM 87499	Pierce SRC 9. Well Number
	(505) 326-9700	2C
	Location of Well	10. Field, Pool, Wildcat
4.	875'FSL, 805'FWL	Blanco Mesaverde
	Latitude 36° 51.9, Longitude 107° 55.8	11. Sec., Twn, Rge, Mer. (NMPM) Sec. 30, T-31-N, R-10-W
	hatitude 30 31.9, hongitude 10, 3000	API# 30-045- 30056
14.	Distance in Miles from Nearest Town 4 miles from Aztec	12. County 13. State San Juan NM
	4 miles from Azcec	
15.	Distance from Proposed Location to Nearest Property or Lease L 805'	ine
16.	Acres in Lease	17. Acres Assigned to Well
		313.80 N/2
		318,3>
18.	Distance from Proposed Location to Nearest Well, Drlg, Compl, o	r Applied for on this Lease
19.	1100' Proposed Depth procedural review pursuant to 40 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4.	20. Rotary or Cable Tools Rotary
21.	Elevations (DF, FT, GR, Etc.) 6012' GR	22. Approx. Date Work will Start
23.	Proposed Casing and Cementing Program	UPPER OF TOWARDS AUTORIZED AR SUBJECT TO COMPLIANCE WITH ATTACK
	See Operations Plan attached	"GENERAL REQUIREMENTS"
24.	Authorized by: Sanu Ole	10-12-99
6. 7 .	Regulatory/Compliance Administrato	Date Date
PERM	APPROVAL D	ATE

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.

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Form C-102 State of New Mexico District I Revised February 21, 1994 Energy Minerals & Natural Resources Department PO Box 1980, Hobbs, NM 88241-1980 Instructions on back Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies District II APR QILD CONSTRVATION DIVISION PO Drawer DD, Artesia, NM 88211-F. OEIVER BOX 2088 NOV 17 FM 1: 21 OIL CON 50 TO NM 87504-2088 District III 1000 Rio Brazos Rd., Aztec, NM AMENDED REPORT DIST 3 District IV PO Box 2088, Santa Fe, NM 87504 ON AND ACREAGE DEDICATION PLAT Pool Name Pool Code API Number Blanco Mesaverde 30-045-*260* 52 72319 Well Number Property Name Property Code **SC** PIERCE SRC 18601 *Elevation *Operator Name 'OGRID No. BURLINGTON RESOURCES OIL & GAS COMPANY 6012 14538 10 Surface Location East/West line North/South line Feet from the Feet from the Lot Ion Range Section Township Ut pr lot no. SAN JUAN WEST SOUTH 805 10W 875 31N 30 Different From Surface 11 Bottom Hole Location If County North/South line Feet from the Section UL or lot no. ⁵⁵ Order No. ¹⁴ Consolidation Code 13 Joint or Infill W/313.80 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 "OPERATOR CERTIFICATION 2674.321 1337.16 1291.62 I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief LOT 5 LOT 6 LOT 7 LOT 8 Peggy Cole × MV * M Printed Name Regulatory Administrator LOT 12 LOT 11 LOT 10 LOT 9 10-12-99 44 Date *SURVEYOR CERTIFICATION 5248 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. FEE LOT 13 LOT, 15 LOT 14 LOT 16 AUGUST 21. 1999 SF-078134 EDW LOT 17 LOT 20 805 LOT 19 LOT 18 **815** 6857

2659.14

1350 36

OPERATIONS PLAN

Well Name:

Pierce SRC #2C

Surface Location:

875'FSL, 805'FWL, Section 30, T-31-N, R-10-W

San Juan County, New Mexico Latitude 36° 51.9, Longitude 107° 55.8

Formation: Elevation: Blanco Mesa Verde

6012' GL

Formation Tops:	<u>Top</u>	Bottom	<u>Contents</u>
Surface Ojo Alamo Kirtland Fruitland Pictured Cliffs Lewis Intermediate TD Mesa Verde Chacra Massive Cliff House Menefee Point Lookout Total Depth	San Jose 1228' 1325' 2119' 2669' 2830' 2930' 3387' 3729' 4324' 4494' 4906' 5306'	1228' 1325' 2119' 2669' 2830' 3387' 3729' 4324' 4494' 4906'	aquifer aquifer gas

Logging Program:

Cased hole logging - Gamma Ray, Cement bond from surface to TD Mud Logs/Coring/DST - none

Mud Program:

100 100	_	77. 7. 1. 4.	772 -	Fluid Loss
Interval- MD	Туре	Weight	<u>Vis.</u>	FIUIU LOSS
0- 200'	Spud	8.4 - 9.0	40-50	no contr ol
200- 2930 '	LSND	8.4-9.0	30-60	no control
2930- 5306'	Air/Mist	n/a	n/a	n/a

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

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

Tubing Program:

0' -5306' 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.

BOP Specifications, Wellhead and Tests (cont'd):

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.

Surface to Total Depth -

2" nominal, 2000 psi minimum choke manifold (Reference Figure #3).

Completion Operations -

7 1/16" 2000 psi double gate BOP stack (Reference Figure #2). 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 2000 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 drill crew.
- All BOP tests & 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 159 sx Class "B" cement with 1/4# flocele/sx and 3% calcium chloride (188 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/259 sx Class "B" w/3% sodium metasilicate, 7# gilsonite/sx and 0.5# flocele/sx. Tail w/90 sx 50/50 Class "B" Poz w/2% gel, 2% calcium chloride, 7# gilsonite/sx and 0.5# flocele/sx (881 cu.ft. of slurry, 60% 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 to determine TOC. Test casing to 1500 psi for 30 minutes.

7" intermediate casing alternative two stage: Stage collar at 2019'. First stage: cement with 129 sx Class "B" 50/50 poz w/2% gel, 7 pps Gilsonite, 2% calcium chloride, 0.5 pps Cellophane. Second stage: 209 sx Class "B" with 3% sodium metasilicate, 1/2 pps Cellophane, 7 pps Gilsonite (881 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 1325'. Two turbolating centralizers at the base of the Ojo Alamo at 1325'. 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 circulate liner top. Pump 270 sx 50/50 Class "B" Poz w/1/4# flocele/sx, 2% gel, 0.1% retardant, 5# gilsonite/sx and 0.4% fluid loss additive (356 cu.ft., 40% excess to circulate liner top). WOC a minimum of 18 hrs prior to completing.

Cement nose guide shoe on bottom with float collar spaced on top of shoe joint. The liner hanger will have a rubber packoff.

 If hole conditions permit, an adequate water spacer will be pumped ahead of each cement job to prevent cement/ mud contamination or cement hydration.

Special Drilling Operations (Air/Mist Drilling):

The following equipment will be operational while gas/mist drilling:

- An anchored blooie line will be utilized to discharge all cuttings and circulating medium to the blow pit a minimum of 100' from the wellhead.
- The blooie line will be equipped with an automatic igniter or pilot light.
- Compressors will be located a minimum of 100' from the wellhead in the opposite direction from the blooie line.
- Engines will have spark arresters or water cooled exhaust.
- The rotating head will be properly lubricated and maintained.
- A float valve will be utilized above the bit.
- Mud circulating equipment, water, and mud materials will be sufficient to maintain control of the well.

Additional Information:

- The Mesa Verde formation will be completed.
- No abnormal temperatures or hazards are anticipated.
- Anticipated pore pressures are as follows:

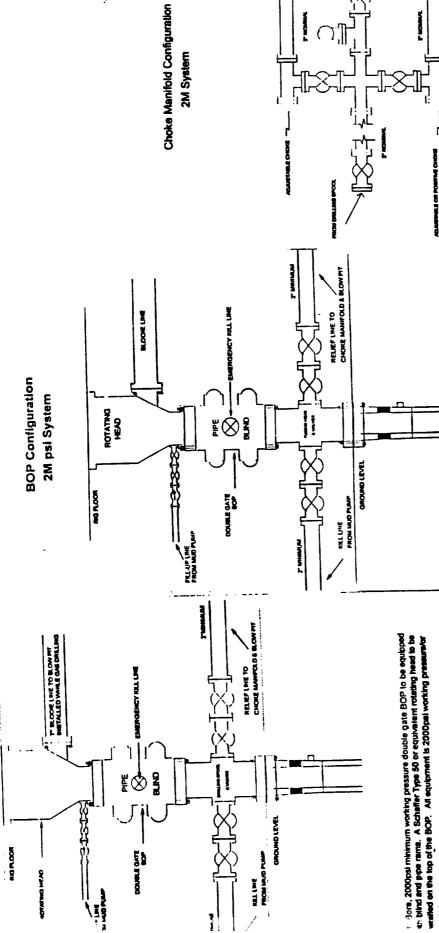
Fruitland Coal 800 psi Pictured Cliffs 800 psi Mesa Verde 700 psi

- Sufficient LCM will be added to the mud system to maintain well control, if lost circulation is encountered below the top of the Pictured Cliffs.
- The west half of Section 30 is dedicated to the Mesa Verde.

This gas is dedicated.

Drilling Engineer

Date 10/19/99



Minimum BOP installation for Completion operations. 7 1/16" Bore (6" Norminal), 2,000 psi mmimum working pressure doubte gats BOP to be equipped with blind and pipe rains.

FIGURE #1

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FIGURE #2

Figure #3

2" minimum, 2000pel working preseure equipment with two chokel Aintmum choice manifold bratalletion from surface to Total Depth.

