



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

March 17, 1997

RECEIVED
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OIL CONSERVATION
DIVISION

Burlington Resources
3535 East 30th Street
Farmington, New Mexico 87499-4289
Attention: Peggy Bradfield

Administrative Order TX-265

Dear Mr. Prichard:

Reference is made to your request for an exception to the tubing setting requirements as contained in Division Rule 107 (j) for the below-named wells.

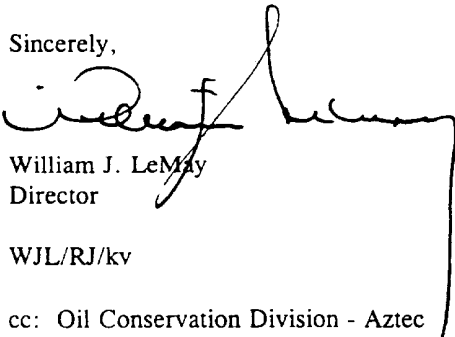
Pursuant to the authority granted me by Rule 107 (d) (4), you are hereby authorized to make tubingless completions in the following wells:

Well Name and Number:

✓ Angel Peak B #14R	Fulcher Kutz Pictured Cliffs	NE 13-28-11	30-045-not assigned - 29446
✓ Brookhaven Com C #4R	S. Blanco Pictured Cliffs	SW 36-27-08	30-045-29430
✓ Feasel #1R	Fulcher Kutz Pictured Cliffs	SW 02-27-10	30-045-not assigned - 29447
✓ Frost #1R	Fulcher Kutz Pictured Cliffs	NE 26-27-10	30-045-not assigned - 29448
Huerfanito Unit #45R <i>NO APD</i>	S. Blanco Pictured Cliffs	SW 24-27-09	30-045-not assigned
✓ Huerfanito Unit #70R	Ballard Pictured Cliffs	NE 10-26-09	30-045-29436
✓ Huerfanito Unit #6R	Fulcher Pictured Cliffs	SW 31-27-10	30-045-not assigned - 29444
✓ McManus #4R	Ballard Pictured Cliffs	SE 19-26-08	30-045-not assigned - 29439

The Division reserves the right to rescind this authority in the event that waste appears to be resulting therefrom.

Sincerely,


William J. LeMay
Director

WJL/RJ/kv

cc: Oil Conservation Division - Aztec

BURLINGTON RESOURCES

SAN JUAN DIVISION

March 3, 1997

New Mexico Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

Att: Mr. Roy Johnson

Dear Roy:

As we discussed February 27 by phone, this letter serves as application for variance to Rule 107 Sections J. We intend to drill and complete the following eight new wells in the Pictured Cliffs formation utilizing 3 1/2" casing and cement, and no tubing.

Angel Peak B #14R	Fulcher Kutz Pictured Cliffs	NE 13-28-11	30-045-not assigned
Brookhaven Com C #4R	S.Blanco Pictured Cliffs	SW 36-27-08	30-045-29430
Feasel #1R	Fulcher Kutz Pictured Cliffs	SW 02-27-10	30-045-not assigned
Frost #1R	Fulcher Kutz Pictured Cliffs	NE 26-27-10	30-045-not assigned
Huerfanito Unit #45R	S.Blanco Pictured Cliffs	SW 24-27-09	30-045-not assigned
Huerfanito Unit #70R	Ballard Pictured Cliffs	NE 10-26-09	30-045-29436
Huerfano Unit #6R	Fulcher Kutz Pictured Cliffs	SW 31-27-10	30-045-not assigned
McManus #4R	Ballard Pictured Cliffs	SE 19-26-08	30-045-not assigned

These tubingless completions are desirable as they allow Burlington to economically produce reserves from the tight, low pressure Pictured Cliffs formation. Significant cost savings are realized in both drilling and completion using this method. The 3 1/2" casing string will allow the wells to produce at a higher rate than can be realized through smaller tubulars, and also carry less risk during any subsequent workover operations.

All the listed wells meet the following criteria:

- are in proven fields
- are less than 5000' total depth
- do not have corrosive or pressure problems
- are not dual completions
- will not produce any liquids or condensate (dry gas only)

Attached is a copy of the C102 well location plat, operations plan, and wellbore schematic for each well. Please let me know if you require any further information for these wells.

Sincerely,



Peggy Bradfield
Regulatory/Compliance Administrator

xc: NMOCD Aztec District Office

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	Pool Code	Pool Name
30-045-	77200	Fulcher Kutz Pictured Cliffs
Property Code	Property Name	Well Number
7139	Huerfano Unit	6R
GRID No.	Operator Name	Elevation
14538	BURLINGTON RESOURCES OIL & GAS COMPANY	6519'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Ids	Feet from the	North/South line	Feet from the	East/West line	County
M	31	27-N	10-W		790	South	1290	West	S.J.

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Ids	Feet from the	North/South line	Feet from the	East/West line	County

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Commencement Code	¹⁵ Order No.
168.18			

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>1</div> <div>2</div> <div>3</div> <div>4</div> <div>5280.00'</div> <div>1290'</div> <div>790'</div>	<div>5408.04'</div> <div>31</div> <div>SF-078422</div> <div>5417.28'</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>Signature Peggy Bradfield</div> <div>Printed Name Regulatory Administrator</div> <div>Title</div> <div>Date</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 surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</div> <div>11/25/96</div> <div>Date of Survey</div> <div>Signature and Seal of Professional Surveyor</div> <div>NEALE C. EDWARDS NEW MEXICO 6857 REGISTERED PROFESSIONAL SURVEYOR</div> <div>6857</div> <div>Certificate Number</div>
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OPERATIONS PLAN

Well Name: Huerfano Unit #6R
Location: 790' FSL, 1290' FWL Section 31, T-27-N, R-10-W
 San Juan County, New Mexico
 Latitude 36° 31.62, Longitude 107° 56.47
Formation: Fulcher Kutz Pictured Cliffs
Elevation: 6519' GL

Formation:	Top	Bottom	Contents
Surface	Nacimiento	1052'	
Ojo Alamo	1052'	1185'	aquifer
Kirtland	1185'	1857'	
Fruitland	1857'	2080'	gas
Fruitland Coal	1890'	2073'	gas
Pictured Cliffs	2080'		gas
Total Depth	2400'		

Logging Program: Hi Res Ind, Den/Neut, MRL/GR to Total Depth.

Mud Program:

<u>Interval</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
120-2400'	LSND	8.4-9.0	40-60	no control

Casing Program (as listed, 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'	8 5/8"	23.0#	M-50
6 1/4"	0 - 2400'	3 1/2"	7.7#	WC-70

Tubing Program: -none

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

3 1/2" production casing - float shoe on bottom. Three centralizers run every other joint above shoe. Four centralizers run every 3rd joint to the base of the Ojo Alamo @ 1185'. Two turbolizing type centralizers - one below and one into the base of the Ojo Alamo @ 1185'. Standard centralizers thereafter every fourth joint up to the base of the surface pipe.

Wellhead Equipment: 8 5/8" x 3 1/2" x 11" 2000 psi screw on independent wellhead.

Cementing:

8 5/8" surface casing - cement with 129 sx Class "B" cement with 1/4# flocele/sx and 3% calcium chloride (149 cu.ft. of slurry, 200% excess to circulate to surface). WOC 12 hrs. Test casing to 600 psi for 30 minutes.

3 1/2" production casing - Lead w/280 sx of 65/35 Class "B" Poz w/6% gel, 2% calcium chloride, and 1/4# flocele/sx. Tail w/100 sx Class "B" w/2% calcium chloride (614 cu.ft. of slurry, 75% excess to circulate to surface). WOC 12 hrs. If cement does not circulate to surface, a CBL will be run during completion to determine TOC.

Huerfano Unit #6R

BOP and tests:

Surface to TD - 11" 2000 psi (minimum double gate BOP stack (Reference Figure #1 and #2). Prior to drilling out surface casing, test rams to 600 psi/30 min.

Completion - 6" 2000 psi (minimum) double gate BOP stack (Reference Figure #2). Prior to completion operations, test rams and casing to 2000 psi/15 min.

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

Pipe rams will be actuated to 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 Pictured Cliffs formation will be completed.
- * Anticipated pore pressure for the Pictured Cliffs is 300 psi.
- * This gas is dedicated.
- * The southwest quarter of the section is dedicated to the Pictured Cliffs.
- * New casing will be utilized.
- * Pipe movement (either rotation or reciprocation) will be done if hole conditions permit.

Drilling Engineer

Date

Huerfano #6R

Section 31K, T-27-N, R-10-W
San Juan County, NM

WEST KUTZ PICTURED CLIFFS WELLBORE SCHEMATIC

PROPOSED

ELEVATION 6506' GL 6516' KB

8-5/8" 23# M-50
Casing
Set @ 120'
Cmt to surface w/ 129 sx
(see operation plan
for cement details)

TOP OF OJO ALAMO @ 1052'

TOP OF KIRTLAND @ 1185'

TOP OF FRUITLAND @ 1857'

TOP OF PICTURED CLIFFS @ 2080'

Perf & Foam Frac
2080' - 2320' w/
85,000# 20/40 sand

3-1/2" 7.7# WC-70
Casing Set @ 2400'
Cmt to Surface
w/380 sx (see
operation plan for
detail).

PBTD @ 2396'
TD @ 2400'