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

RECEIVED BUM MAIL ROOM

	<u>.                                    </u>	EPEN, OR PLUG BACK SS COT LO PM
a.	Type of Work	5. Lease Number
	DRILL	NM-0607 070 FA MARIGTO
	T cCN/ell	6. If Indian, All. or Tribe
b.	GAS ( pressure observation)	<u> </u>
	Operator	7. Unit Agreement Name
	MERIDIAN OIL	
3.	Address & Phone No. of Operator	8. Farm or Lease Name Atlantic C
	PO Box 4289, Farmington, NM 87499	9. Well Number
	(505) 326-9700	4B
4.	Location of Well	10. Field, Pool, Wildcat
τ.	2495/ FSL, 2310' FWL	Blanco Mesa Verde ———————————————————————————————————
	Latitude 36° 51.3, Longitude 107° 55.5	Sec 31, T-31-N, R-10
	hatitude 30 31.3, honground 1	API # 30-045- 29298
14.	Distance in Miles from Nearest Town	12. County 13. State
	3 miles to Aztec, NM	San Juan NM
15.	Distance from Proposed Location to Nearest Property or Lea	se Line
16.	2310' Acres in Lease	17. Acres Assigned to Well
	, 10, 10 III = 10 III	3 <del>17.30 W/2</del>
18.	Distance from Proposed Location to Nearest Well, Drlg, Comp	ol, or Applied for on this Lease
19.	1700' Proposed Depth	20. Rotary or Cable Tools
13.	5288'	Rotary
21.	Elevations (DF, FT, GR, Etc.)	22. Approx. Date Work will Start
	6048' GR	4th quarter 1995
21.		
23.	Proposed Casing and Cementing Program	DRILLING OPERATIONS AUTHORIZED
23.	Proposed Casing and Cementing Program See Operations Plan attached	SUBJECT TO COMPLIANCE WITH ATT,
23. ion la s	Proposed Casing and Cementing Program See Operations Plan attached Subject to technical and Gey pursuant to 43 CFR 3165.3	
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District I PO Hox 1988, Hobbs, NM 28241-1986 District II Pt) Drawer DD, Artesia, NM \$8211-0719 District III

# State of New Mexico Energy, Minerain & Natural Resources Department

Form C-i Revised February 21, 19

OIL CONSERVATION DIVISION AIL ROSPINIT to Appropriate District Off PO Box 2088

Santa Fe. NM 87504 2000

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## OPERATIONS PLAN

Well Name: Atlantic C #4B

2495'FSL, 2310'FWL Section 31, T-31-N, R-10-W Location:

San Juan County, New Mexico

Latitude 36° 51.3, Longitude 107° 55.5

Formation: Blanco Mesa Verde

6048'GL Elevation:

Formation Tops:	Top	Bottom	Contents
Surface Ojo Alamo Fruitland Pictured Cliffs Lewis Intermediate TD Mesa Verde Massive Cliff House Menefee Massive Point Lookout Mancos Total Depth	San Jose 1734' 1914' 2669' 2814' <b>2895</b> ' 3699' 4256' 4466' 4881' 5249' <b>5288</b> '	1734' 1914' 2669' 2814' 3699' 4256' 4466' 4881' 5249'	aquifer gas gas gas gas gas gas

## Logging Program:

Openhole Wireline Logging -

Surface to Intermediate TD : DIL/LDT/CNL/NGT/ML/FMS Intermediate TD to Total Depth : DIL/LDT/CNL/Temp

Mud Logs/Coring/DST - none

Mud Program:

* <u> </u>				
Interval	Туре	Weight	Vis.	Fluid Loss
0- 200	Spud	8.4-8.9	<del>40-5</del> 0	no control
	1		20 60	ma control
200-2895 <b>'</b>	Weighted	8.4-9.1	30-60	no control
2895-52881	Gas/Mist	n/a	n/a	n/a
2000 0200	040,	•		

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

#### Casing Program:

ing Frogram.				~ 1
Hole Size	Depth Interval	Csg.Size		Grade
12 1/4"	0' - 200'	9 5/8"	32.3#	H - 40
8 3/4"	0' - 2895'	7"	20.0#	K-55
, -	7" stage tool	@ 1864'		
6 1/4"	2745' - 5288'	4 1/2"	10.5#	K-55

#### Tubing Program: 0' - 5288' 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.

## Surface to Total Depth -

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

#### Completion Operations -

6" 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 160 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 12 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 -

First stage - lead w/105 sx of 65/35 Class "B" poz w/6% gel, 2% calcium chloride, 5# gilsonite/sx and 1/4# flocele/sx. Tail w/100 sx Class "B" w/2% calcium chloride (271 cu.ft. of slurry, 75% excess to circulate to stage tool @ 1864'.)

Second stage - Lead w/269 sx 65/35 Class "B" poz w/6 gel, 2% calcium chloride, 5# gilsonite/sx and 1/4# flocele/sx. Tail w/50 sx Class "B" w/2% calcium chloride (560 cu.ft. of slurry, 100% excess to circulate to surface.) WOC minimum of 12 hours before drilling out intermediate casing. If cement does not circulate to surface, a temperature log will be run after 8 hours to determine TOC. Test casing to 1500 psi for 30 minutes.

Cement nose guide shoe on bottom with float collar spaced on top of shoe joint. Seven bowspring centralizers spaced every other joint off bottom, with three spaced every fourth joint to the base of the Ojo Alamo at 1914'. Two turbolating centralizers at the base of the Ojo Alamo at 1914'. 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. Lead with 203 sx 65/35 Class "B" poz w/6% gel, 2% calcium chloride, 5# gilsonite/sx and 1/4# flocele/sx. Tail with 100 sx Class "B" w/2% calcium chloride (444 cu.ft., 75% 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.
- The pipe will be rotated and/or reciprocated, if hole conditions permit.

## Special Drilling Operations (Gas/Mist Drilling):

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

- An anchored bloose 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.
- Deduster equipment will be utilized.
- 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.
- This well will be utilized as a Pressure Observation Well only at this time.
- No abnormal temperatures or hazards are anticipated.
- Anticipated pore pressures are as follows:

Fruitland Coal 1000 psi Pictured Cliffs 1000 psi

700 psi Mesa Verde

- 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 31 is dedicated to this well.
- This gas is dedicated.

