

To supplement USGS Form 9-331C " Application for Permit to Drill, Deepen or Plugback", the following additional information is submitted to comply with USGS Order NTL-6.

Operator: ARCO Oil and Gas Company - Division of Atlantic Richfield Company

Lease & Well No: MacDonald Federal #1

Location: Unit Letter A

Section 22-13S-24E

Chaves County, New Mexico

Lease, New Mexico 54833

Development well _____ Exploratory well X

1. See Well Location and Acreage Dedication Plat Form C-102.
2. See Form 9-331C for elevation above sea level of unprepared location.
3. The geologic name of the surface formation is:
Paleorthids Calciorthids association
4. The type of drilling tools and associated equipment to be utilized will be: Rotary
5. The proposed drilling depth will be 5500' .
6. The estimated tops of important geologic markers are:
Abo 3600'
Wolfcamp 4300'
Fusselman 5000'
7. The estimated depths at which anticipated water, oil, gas or other mineral bearing formations are expected to be encountered are:

100-300'	F. Water	4300'	Wolfcamp
1450'	Glorieta	5000'	Fusselman
2900'	Tubb	5200'	Pre-Cambrian
3600'	Abo		
8. The proposed casing program including the size, grade and weight-per-foot of each string has been indicated on Form 9-331C. All strings of casing will be: New X Used _____.
9. See Form 9-331C for amount of cement.
The 8-5/8" OD casing will be cemented w/approx 800 sx of C1 C cmt cont'g 2% CaCl₂.
The 5 1/2" OD csg will be cemented w/approx 650 sx of light cmt cont'g 1/4#/sk flocele followed by 150 sx C1 H Neat cont'g 2% CaCl₂.