INTRODUCTION

Recently, several archaeological reconnaissances were completed by the Agency of Conservation Archaeology, Eastern New Mexico University, Portales, for Amoco Production Company in Lea and Eddy Counties, New Mexico. At each of the seven locations, the area will be impacted by the construction of a drill pad and, in the case of three locations, by the construction of an accompanying access road. This project was completed under Federal Antiquities Permit No. 77-NM-021.

This project was administered by Mr. Ray Cox, representative for Amoco Production Company, and Dr. J. Loring Haskell, Director, Agency of Conservation Archaeology.

The reconnaissance was completed by Thomas F. Zale on 19 October 1977 and 23 October 1977.

SURVEY TECHNIQUE

The archaeologist accomplished each reconnaissance by walking a series of parallel transects, each measuring 20 ft, across the proposed drill location. In addition, each of the three proposed access roads was walked in a zigzag pattern. These techniques permitted optimal conditions for the examination of areas of primary and secondary impact.

Myers "A" Federal Well No. 7

Location

The proposed access road is 12 ft wide and extends approximately 100 ft through:

NE¼SE¼, Section 22, T24S, R37E, NMPM, Lea County, New Mexico (BLM).

The proposed drill location measures 400 x 400 ft and situated in the:

NE¼SE¼, Section 22, T24S, R37E, NMPM, Lea County, New Mexico (BLM).

Map Reference: USGS Jal NW, 7.5 Minute Series.

Floristics

Gutierrezia sarothrae is the dominant floral species. In addition, Prosopis juliflora, Agropyron smithii, Bouteloua eriopoda, and Opuntia spp. are represented in the local plant assemblage.

Cultural Resources

No visible resources were noted during the archaeological examination of this area.

Recommendations

ACA recommends clearance and suggests that plans for the proposed drill location proceed without modification of existing plans.

Myers "B" Federal Well No. 28

Location

The proposed drill location measures 400 x 400 ft and is situated in the: NW¼NW¼, Section 15, T24S, R37E, NMPM, Lea County, New Mexico (BLM).

The existing road will be used as the access for this location.

Map Reference: USGS Jal NW, 7.5 Minute Series.

Terrain

Topographically, the area is marked by an undulating plain with shallow to moderately deep loamy soils underlain by caliche.

Floristics

The local plant assemblage is composed largely of Gutierrezia sarothrae, Prosopis juliflora, Opuntia spp., Agropyron smithii, and Sporobolus cryptandrus. Gutierrezia sarothrae appears to be the dominating species.

Attachment to "Application for Permit to Drill" Form 9-331 C
Myers "A" Federal Well No. 7, Unit I, 1,980' FSL and 660' FEL,
Section 22, T-24-S, R-37-E, Lea County, New Mexico.

1. Location

   See Attached Form C-102

2. Elevation

   See Attached Form C-102

3. Geologic name of surface formation.

   Unknown

4. Type of drilling tools and associated equipment to be utilized.

   See Form 9-331 C

5. Proposed drilling depth.

   See Form 9-331 C

6. Estimated tops of important geologic markers.

   Yates - 2,510'
   Seven Rivers - 2,785'
   Queen - 3,185'

7. Estimated depths at which anticipated water, oil, gas or other mineral bearing formations are expected to be encountered.

   Yates - 2,510'
   Seven Rivers - 2,785'
   Queen - 3,185'

8. Proposed casing program including size, grade, and weight of each string and whether it is new or used.

Depth	Size	Weight	Grade	New or Used
1,200'	9-5/8"	36#	K-55 ST&C	New
3,600'	7"	23#	K-55 ST&C	New

9. Proposed cementing program.

   9-5/8" casing - sufficient cement to circulate to surface.
   7" casing - sufficient cement to tie back to 9-5/8" casing.

10. Blow Out Preventer Program is Attached

11. Type and characteristics of the proposed circulating medium or mediums to be employed for rotary drilling and the quantities and types of mud and weighting material to be maintained.

Surf. to 1,200' - Native mud and fresh water.
1,200' to 3,600' - Brine water, native mud and sufficient commercial mud to maintain good hole conditions.

12. Testing, logging and coring programs to be followed with provisions made for required flexibility.

Surf. to TD - Gamma Ray
1,200' to 3,600' - GR-CNL-FDC-Caliper
1,200' to 3,600' - GR-Dual Laterolog-Micro SFL

13. Any anticipated abnormal pressures or temperatures expected to be encountered or potential hazards such as hydrogen sulfide gas, along with plans for mitigating such hazards.

None anticipated.

14. Anticipated starting date and duration of operation.

15. Other facets of the proposed operation, operator wishes to point out for the Geological Survey's consideration of the application.

None.