

GEOLOGICAL REPORT  
FEDERAL UNIT PROPOSAL  
DUNES UNIT - SEC. 6, T23S, R31E  
EDDY COUNTY, NEW MEXICO

American Quasar's proposed Federal Unit is four miles southwest of the Sand Dune Field (26-23S-31E) in southeastern Eddy County, New Mexico. The Dunes Unit outlines a potential structural-stratigraphic trap in the Pennsylvanian Atoka formation. A well will be drilled 1980' FN&WL's of Section 6, T23S, R31E, to a depth of 15,000'.

The Atoka production we expect in this four section unit will be comparable to the Atoka Reef production in the Texas American #1 Todd Federal (26-23S-31E) in the Sand Dune Field. This well established excellent Atoka production in 1969 when it was potentialized for 75,000 MCFGPD. The well has produced in excess of 9 Billion CFG and still produces 3-5 million CFGPD. This production is from a narrow east-west trending reef deposit. Permeability in this reservoir is best developed over structure. At least 20' of permeable limestone is required to provide enough reserves to be profitable. The proposed Federal Unit includes all of the Atoka Reef trend that is interpreted to have in excess of 20' of net permeable limestone.

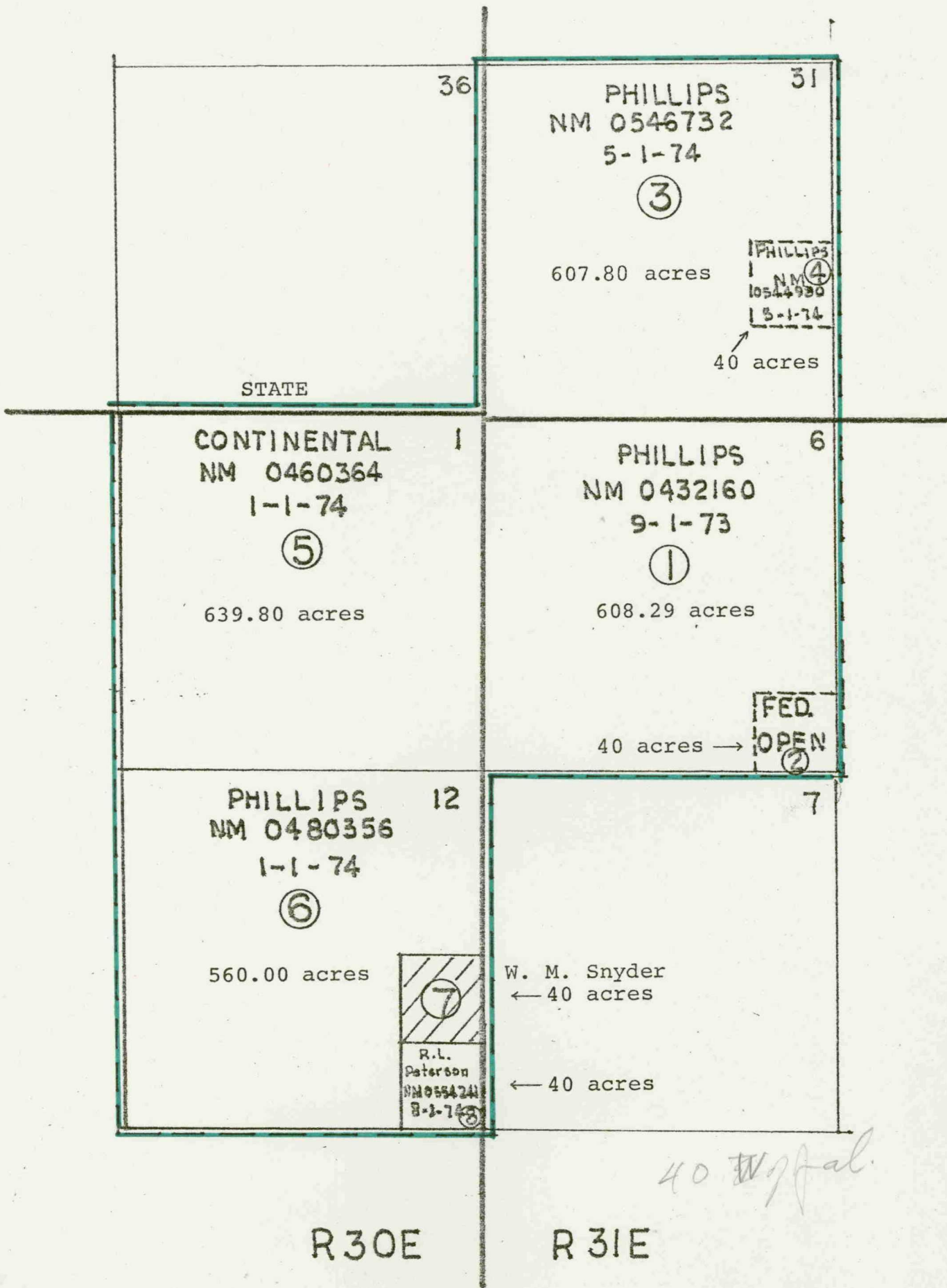
The sections adjoining the Dunes Unit are not prospective because of the absence of the reservoir or because they are already in another unit. Sections 36-23S-30E, 30-23S-31E, 7-24S-31E, and 13-24S-30E have little chance to produce from the Atoka Reef because the rocks are expected to be dense or the permeability too thin for commercial production. The south half of Section 2 and all of Section 11-24S-30E are within the Poker Lake Unit. Section 32-23S-31E and Section 5-24S-31E are within Working Interest Units assigned to the El Paso #1 Mobil Federal (29-23S-31E) and the El Paso #1 Sundance (4-24S-31E).

Excellent Atoka Reef production is anticipated inside the Dunes Unit.

*Chas. Smith*

5067
Am. Quasar
11/18/73

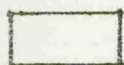




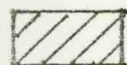
OUTLINE OF UNIT AREA

①

TRACT NUMBER



FEDERAL LAND, 2,535.89 ACRES  
98.44% of UNIT AREA



PATENTED (FEE) LANDS, 40 ACRES  
1.55% of UNIT AREA

TOTAL 2,575.89 ACRES

BEFORE EXAMINER UTZ  
OIL CONSERVATION COMMISSION  
EXHIBIT NO. ③  
CASE NO. 5067  
Submitted by Ann Guasor  
Hearing Date 9-19-73

SERIAL NUMBERS OF  
FEDERAL LEASES:

NM 0418942 (expired)  
0432160  
0460364  
0480356  
0544986-B  
0546732-A  
0554241

EXHIBIT "A"  
DUNES UNIT  
EDDY COUNTY, NEW MEXICO