



September 9, 1981

*NSL 1442
Rule 104 F
Bone Spring, Wolfcamp,
Strawn, Aftoka,
Morrow formations
4-4-81*

Grace Petroleum Corporation
Subsidiary of W. R. Grace & Co.

Midland District Office
925 Western United Life Building
Midland, Texas 79701

Phone (915) 683-4793
Mailing Address:
P. O. Drawer 2358
Midland, Texas 79702

State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87501

Attention: Joe D. Ramey - Director

Re: Request for Administrative Approval
Exception to C. II (a) of Rule 104
West Tonto "A" Federal Com. No. 1
2480' FSL & 660' FWL of Sec. 25
T-19-S, R-32-E
Lea County, New Mexico

Gentlemen:

Grace Petroleum Corporation respectfully requests exception to the spacing rules of C. II (a) of Rule 104 for subject proposed well. Exception is a result of location being closer than 330' to a quarter-quarter section. The request is necessary because of an archeological site at the standard location previously staked.

Attached are four (4) copies of the Archeological Clearance Report recommending the location 500' North of the original location, moving it from 1980' FSL of Sec. 25, T-19-S, R-32-E to 2480' FSL of the section, Lea County, New Mexico. This location meets the required 660' from the side and exceeds the required 1980' from the end line of the 320 acre proration unit.

Also attached for information are four (4) copies each of Form 9-331C Application to Drill and Form C-102, Well Location and Acreage Dedication Plat for subject well.

The USGS will process our application with an approval of this location from the Energy and Minerals Department of the Oil Conservation Division.

Offset operators are being sent a copy of this request.



Yours very truly,

Buddy J. Knight
Buddy J. Knight
District Production Manager

BJK:DWR:sgp

XC: USGS - Roswell - Less Attachments
Offset Operators (List Attached) - Less attachments
Well File - Less Attachments

OFFSET OPERATORS

WEST TONTO "A" FED. COM. NO.1

Amoco Production Company
Box 68
Hobbs, New Mexico 88240

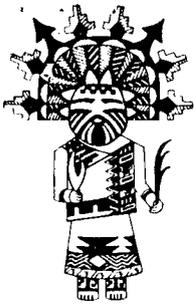
Anadarko Production Company
Box 2497
Midland, Texas 79702

Southern Union Exploration Company
First International Building
Suite 1800
Dallas, Texas 75270

Sun Production Company
Box 1861
Midland, Texas 79702

Union Oil Company of California
Box 671
Midland, Texas 79701





NMAS
New Mexico Archaeological Services, Inc.

P. O. Box 1341

Carlsbad, New Mexico 88220

(505) 887-7646

REC. MIDLAND AUG 28 1981

27 August 1981

Reconnaissance
Excavation
Analysis
Explanation
Curation

Mr. Buddy Knight
District Production Manager
GRACE PETROLEUM CORPORATION
P.O. Drawer 2358
Midland, Texas 79702

Note: Lease & well name corrected
to:

West Tonto "A" Federal Com.
No. 1
(Required by USGS)

Dear Mr. Knight:

Enclosed please find NMAS' Archaeological Clearance Report for GRACE PETROLEUM CORPORATION's proposed West Tonto Federal Com. Well No. 2 and its associated access road in Lea County, New Mexico. One archaeological site (NMAS 5171) was recorded during this reconnaissance. NMAS is *suggesting* clearance for this project *provided the archaeological site is avoided; please consult our report for the suggested mitigation.*

If you have any questions pertaining to this report, please call my office. Thank you for asking NMAS to do this reconnaissance.

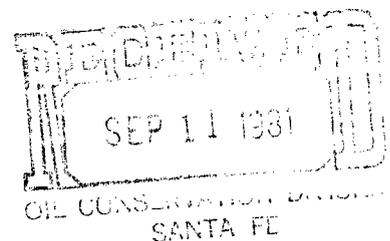
Yours sincerely,

J. Loring Haskell
Dr. J. Loring Haskell
Principal Investigator

Enclosure

cc: Mr. Thomas Zale, BLM, Carlsbad
Ms. Ann Ramage, BLM, Roswell
Mr. Jim Gillham, USGS, Hobbs
Mr. Curtis Schaafsma, Laboratory of Anthropology,
Santa Fe
Mr. Thomas W. Merlan, SHPO, Santa Fe

as



Archaeological Clearance Report

for

GRACE PETROLEUM CORPORATION

West Tonto Federal Com. No. 2
and
New Access Road

Prepared

By

Roderic N. McLean
and
Phillip L. Condrey

Submitted

By

Dr. J. Loring Haskell
Principal Investigator
New Mexico Archaeological Services, Inc.
Carlsbad, New Mexico

27 August 1981

Permit No. 80-NM-193

ABSTRACT

New Mexico Archaeological Services, Inc., representing GRACE PETROLEUM CORPORATION, Midland, undertook an archaeological reconnaissance of Bureau of Land Management lands scheduled to be impacted by the construction of a drill location and its associated access road. The investigated areas are situated in Section 25, T19S, R32E, NMPM, Lea County, New Mexico. One archaeological site was recorded during this project. Clearance is *suggested provided the archaeological site is avoided.*

Introduction

On 19 August 1981, New Mexico Archaeological Services, Inc., (NMAS), Carlsbad, undertook for GRACE PETROLEUM CORPORATION, Midland, an archaeological reconnaissance of federal lands administered by the Bureau of Land Management in Lea County, New Mexico. Reconnoitered areas will be impacted by the construction of a drill location and its associated access road. This project was advanced by Mr. Buddy J. Knight, District Production Manager, GRACE PETROLEUM CORPORATION, and administered by Dr. J. Loring Haskell, Principal Investigator, NMAS, Inc. This reconnaissance was undertaken by Mr. Roderic N. McLean and Mr. Phillip L. Condrey, Research Assistants, NMAS.

Survey Technique

For this investigation, GRACE PETROLEUM CORPORATION's proposed location was reconnoiered for evidence of man's past activities by walking it in a series of 25 ft wide, close interval (15° or less), zigzag transects. In addition an added zone embracing to 20 ft on each side of the staked 400 X 400 ft location, and hence lying outside the bounds of the proposed work area, was reconnoitered by a similar means. As for the access road, it was walked in two 25 ft wide transects. Methodologically, this procedure served to promote optimal conditions for the visual examination of areas to be impacted by the construction-related activities.

West Tonto Federal Com. No. 2

Location

The proposed location will measure 400 X 400 ft on federal lands and will be situated 1980 ft from the south line and 660 ft from the west line of:

Section 25, T19S, R32E, NMPM, Lea County, NM

Thus it will be situated in the:

NW $\frac{1}{4}$ SW $\frac{1}{4}$, Section 25, T19S, R32E, NMPM, Lea County, NM

The associated access road will measure 20 X 3960 ft and will be situated in the:

NW $\frac{1}{4}$ SW $\frac{1}{4}$, Section 25, T19S, R32E, NMPM, Lea County, NM

NE $\frac{1}{4}$ SW $\frac{1}{4}$, Section 25, T19S, R32E, NMPM, Lea County, NM

NW $\frac{1}{4}$ SE $\frac{1}{4}$, Section 25, T19S, R32E, NMPM, Lea County, NM

NE $\frac{1}{4}$ SE $\frac{1}{4}$, Section 25, T19S, R32E, NMPM, Lea County, NM

Map Reference: USGS LAGUNA GATUNA QUADRANGLE, 15 Minute Series, 1963.

Terrain

The proposed location will be situated on a gently rolling landform overlain by a thick deposit of aeolian material of Holocene and Pleistocene age. Deflation basins with hummocks ranging between 1-5 m in height characterize the coeval surface. Deflation basins are interconnected with associated drainage being of the internal type. Soils are composed of loose, non-calcareous sandy loams and loamy sands harboring occasional caliche inclusions. Pedons belong to the Typic Torripsamment subgroup and its intergrades.

Floristics

Areal soils host a mixed overstory of Prosopis juliflora, Yucca glauca, and Quercus havardii. Attendant forbs include Gutierrezia saorthrae, Euphorbia sp., Phayllanthus sp., and Eriogonum annuum. The Gramineae is represented by Aristida sp., Bouteloua sp., Cenchrus incertus, Sporobolus sp., and Stipa neomexicana.

Cultural Resources

During the course of this reconnaissance, one archaeological site (NMAS 5171) was recorded.

NMAS 5171

Location: SW $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$, Section 25, T19S, R32E, NMPM, Lea County, NM

UTM: Zone 13, N,3,610,700; E619,575

Map Reference: USGS LAGUNA GATUNA QUADRANGLE, 15 Minute Series, 1963.

Ownership: Bureau of Land Management

Dimension of Resources: 122 X 244 m

Typological Designation: Special Activity Zone

Temporality: Archaic (?)

Nature of Cultural Resources: NMAS 5171, special activities zone, is situated in a series of deflation basins. This landform is characterized by large hummocks which range between 1 and 5 m in height. Basins are enclosed as well as interconnected. Observed resources include sporadic occurrences of chert and quartzite primary and secondary decortication flakes, chert and quartzite cores, and sandstone one-handed manos. Resources occur in several concentrations with additional cultural properties occurring as light scatters elsewhere. Tasks represented at this site focused on flaked-tool manufacture, i.e., the roughing out of flaked-tools rather than actually finishing them, and the milling of foodstuffs. Owing to the absence of diagnostic artifacts, temporal and cultural parameters cannot be established. The absence of ceramics may indicate Archaic age albeit this is not a certainty. Locally, the Archaic and the Jornada Mogollon are separated primarily on the presence or absence of ceramics.

Further investigation of this site should expand our knowledge with respect to flaked-tool manufacture, actual preferences for or against potentially knappable lithic material, and site selection. Also, further investigation may yield macrobotanical samples and Palynological samples which may determine the exact nature of utilized foodstuffs. In addition, site authorship and hence temporal parameters may be established.

Recommendations

NMAS *suggests* clearance for GRACE PETROLEUM's proposed location *provided* the archaeological site is *avoided*. This can be accomplished by shifting the proposed well to 2480 FSL and 660 ^{FWL}~~FNL~~, Section 25, T19S, R32E, NMPM, Lea County, New Mexico (Fig. 1). This area has been reconnoitered for evidence of man's past activities and has been found to be free of them. NMAS has flagged a route for the proposed access road to the southeast corner of the *suggested* pad location. GRACE PETROLEUM is amenable to the proposed change. NMAS 5171 is to be *avoided by men and materiel during all phases of the project as well as after its completion*. Clearance, of course, is granted by the BLM. If additional cultural properties are encountered during work-related activities, the BLM and NMAS should be notified immediately. Duned areas are notorious for covering and uncovering cultural properties.

Definition used by NMAS

As used by NMAS, a "site" is defined as any cultural material containing clear evidence of other than *en passant* human occupation.

OCCUPATION ZONE

An occupation zone is a site at which associated cultural properties occur scattered over an extensive tract of land. Specifically, resources occur as a light, but extensive, scatter and lack overall concentration. Sites of this type, may or may not, reflect one task-specific activity.

TASK LOCUS

A task locus is a site at which an individual, or social unit, carries out a single task-related activity, e.g., a milling station or a lith fabrication station (one type of cultural resource).

SPECIAL ACTIVITIES ZONE

A special activities zone is distinguished by a small range of related tasks, e.g., milling tools in association with hide working tools (more varied cultural resources).

LIMITED BASE

A limited base is characterized by a wider range of socio-economic activities resulting from more sustained occupation. Although it contains a wider array of task-related activities than at the above, it represents less than the full range of expected cultural resources construed as constituting a local group.

HOME BASE

A home base is a site which evidences signs of year-around occupation and hence was occupied by the full spectrum of social units normally construed as constituting a local group, i.e., the full range of cultural resources.

ISOLATED CULTURAL RESOURCE(S)

An isolated cultural resource, as used by NMAS, refers to any artifact or cultural material, separated by more than 20 m from any other occurrence. Isolated cultural resources, if multiple, have concentrations of less than one artifact per square meter exclusive of burned stone. Resources of this type are attributed to *en passant* activities.

N

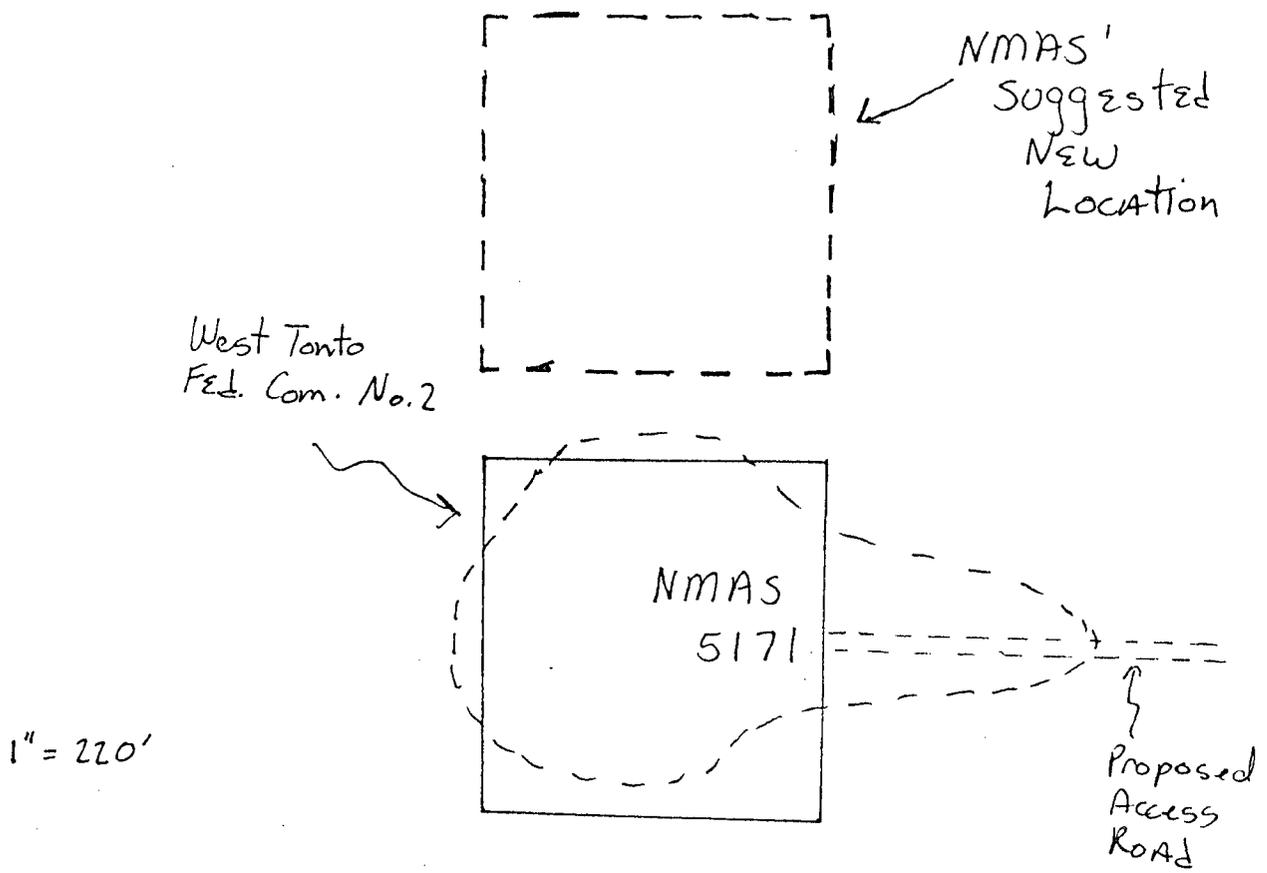


Fig. 1. Schematic representation showing NMAAS 5171, vis a vis NMAAS' suggested re-location of West Tonto Federal Com. Well No. 2, 500 ft to the north, i.e., 2480 FSL and 660 ~~FNL~~, Section 25, T19S, R32E, NMPM, Lea County, New Mexico. FWL

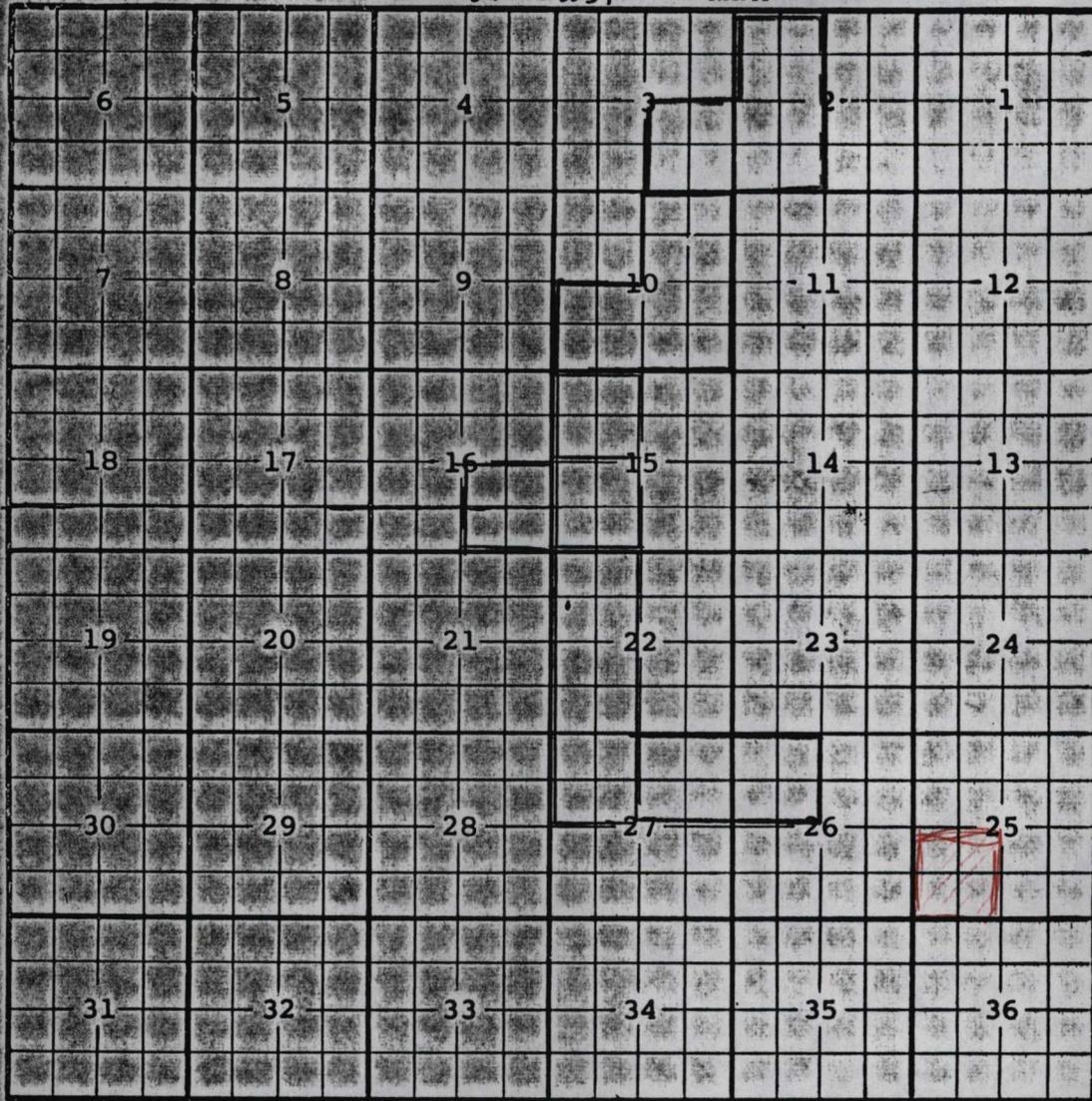
COUNTY *Lea*

POOL *East Lusk - Bone Springs*

TOWNSHIP *19 South*

RANGE *32 East*

NMPM



Description: *NW/4 Sec. 15 (R-4995, 5-1-75)*

Ext: *SW/4 Sec 15 (R-5338, 1-1-77) Ext: W/2 Sec 22, NW/4 Sec 27 (R-5456, 7-1-77)*

Ext: *SE/4 Sec 16 (R-5534, 10-1-77) Ext: E/2 and SW/4 Sec 10 (R-6005, 6-1-79)*

Ext: *NW/4 Sec. 26, NE/4 Sec 27 (A-8214, 5-1-86)*

Ext: *W/2 Sec. 2, SE/4 Sec. 3 (R-8584, 11-1-88)*