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OIL CONSERVATION DIVISION
SANTA FE

1457

November 30, 1981

Joe D. Ramey, Director
New Mexico Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87501

NSL
Rule 104F
* 12-29-81

Dear Mr. Ramey:

Subject: Helen Federal Com #1
990' FNL & 330' FWL
Sec 1, T7S, R25E
Chaves County, New Mexico

} Und Ab Gas

Application is hereby made for Administrative Approval of an unorthodox location for subject well due to the presence of archaeological material and topographical constraints at the regular location alternatives.

Exhibit I is Form C102 showing mineral lease holders for proposed pro-
ration unit, Exhibit II is a topographic plat, Exhibit III is a copy
of the archaeological report provided by NMAS, Inc. regarding the
subject well, and Exhibit IV, is a land map showing offset operators.
All offset operators have been notified of this request by registered
mail.

Expeditious handling of this request and issuance of appropriate admin-
istrative order is appreciated.

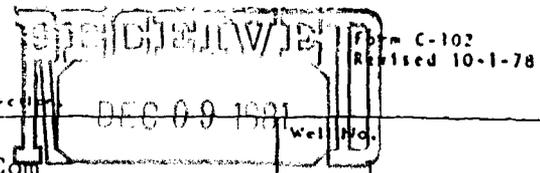
Yours truly,

MESA PETROLEUM CO.

R.E. Mathis
Regulatory Coordinator
Permian Basin Division

cb

xc: Yates Petroleum Co., Stevens Oil



All distances must be from the outer boundaries of the Section

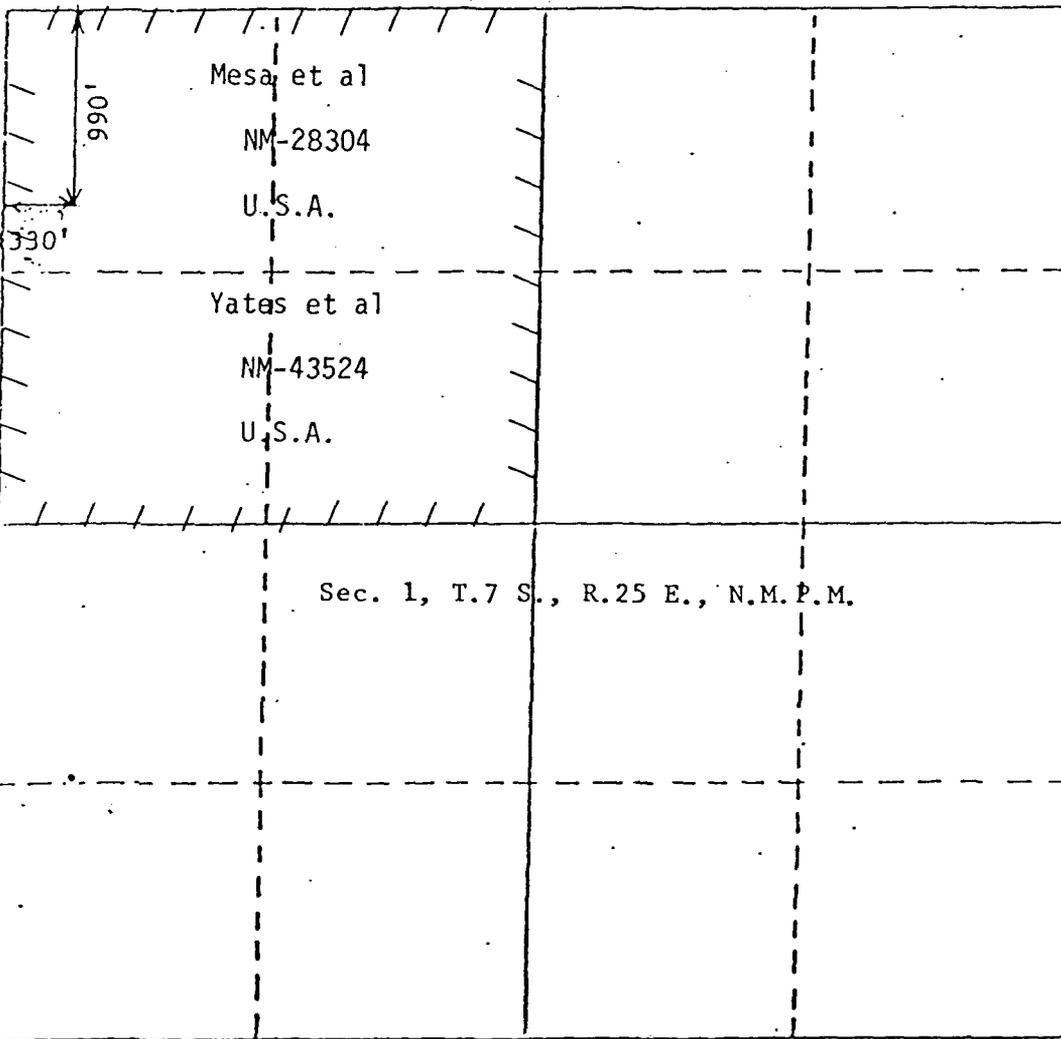
Operator Mesa Petroleum Co.		Lease Helen Federal Com		Well No.	
Unit Letter D	Section 1.	Township 7 South	Range 25 East	County SANTA FE Chaves	
Actual Postage Location of Well: 990 feet from the North line and 330 feet from the West line					
Ground Level Elev. 3702	Producing Formation ABO	Pool Undesignated	Dedicated Acreage: NW 160 Acres		

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

Yes No If answer is "yes," type of consolidation COMMUNITIZATION

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.)

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Division.



CERTIFICATION

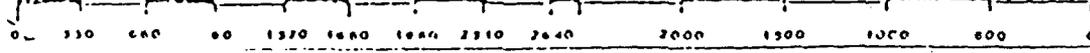
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

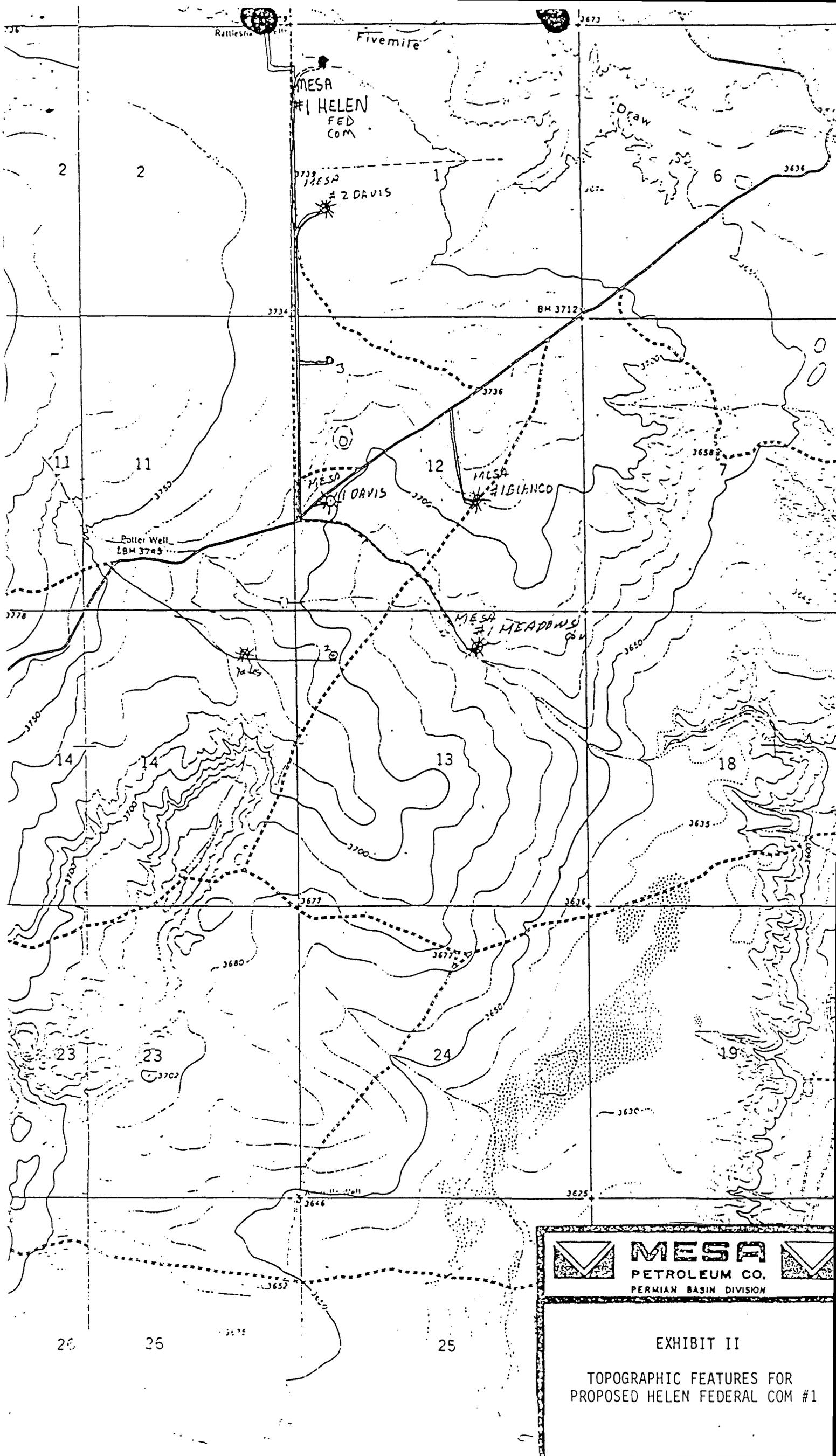
R.E. Mathis

Name
R.E. Mathis
Position
Regulatory Coordinator
Company
Mesa Petroleum Co.
Date
11-24-81

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

JOHN D. JAQUES
NEW MEXICO
Date Surveyed
October 28, 1981
Professional Land Surveyor
and/or Licensed Engineer
SUPERVISOR
John D. Jaques
P.E. & L.S.
Certificate No.
6290





Fivemile

MESA
#1 HELEN
FED
COM

MESA
#2 DAVIS

MESA
#1 DAVIS

MESA
#1 BLANCO

MESA
#1 MEADOWS

Potter Well
BM 3745

 **MESA** 
PETROLEUM CO.
PERMIAN BASIN DIVISION

EXHIBIT II
TOPOGRAPHIC FEATURES FOR
PROPOSED HELEN FEDERAL COM #1

Archaeological Clearance Report
for
MESA PETROLEUM CO.

Helen Federal Com. Well No. 1

Prepared

By

John C. Haight
Research Assitant

Submitted

By

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

2 November 1981

Permit No. 81-NM-306

ABSTRACT

New Mexico Archaeological Services, Inc., representing MESA PETROLEUM CO., Midland, undertook an archaeological reconnaissance of Bureau of Land Management lands scheduled to be impacted by the construction of a drill location. The investigated area is situated in Section 1, T7S, R25E, NMPM, Chaves County, New Mexico. One archaeological site, NMAS 5210, and seven isolated cultural resources (CR) were recorded during this reconnaissance. NMAS is suggesting clearance for MESA PETROLEUM's proposed work provided the archaeological site is avoided.

Introduction

On 26 October 1981, New Mexico Archaeological Services, Inc., (NMAS), Carlsbad, undertook for MESA PETROLEUM CO., Midland, an archaeological reconnaissance of federal lands administered by the Bureau of Land Management in Chaves County, New Mexico. The reconnoitered area will be impacted by the construction of a drill location. This project was advanced by Mr. Lloyd Reed, Regulatory Agent, MESA PETROLEUM CO., and administered by Dr. J. Loring Haskell, Principal Investigator, NMAS, Inc. This reconnaissance was undertaken by Mr. John C. Haight, Research Assistant, NMAS.

Survey Technique

For this investigation, MESA PETROLEUM's proposed location was reconnoitered 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 500 ft location, and hence lying outside the bounds of the proposed work area, was reconnoitered by a similar means. Methodologically, this procedure served to promote optimal conditions for the visual examination of areas to be impacted by construction-related activities.

Helen Federal Com. Well No. 1

Location

The proposed location will measure 400 X 500 ft on federal lands and will be situated 990 ft from the north line and 330 ft from the west line of:

Section 1, T7S, R25E, NMPM, Chaves County, NM

Thus it will be situated in the:

NW $\frac{1}{4}$ NW $\frac{1}{4}$, Section 1, T7S, R25E, NMPM, Chaves County, NM

An existing lease road borders the western edge of the proposed location.

Map Reference: USGS EIGHTMILE DRAW QUADRANGLE, 7.5 Minute Series, 1962.

Terrain

MESA PETROLEUM's proposed location will be situated on a gently sloping landform which overlooks Fivemile Draw to the north. Locally, sheetwash is heavy with drainage being to the north and discharging into Fivemile Draw. Areal soil individuals are composed of moderately-compacted, calcareous, silty clay loams, and sandy clay loams. A scree of chert and quartzite cobbles and gravels demarcates the coeval surface. Pedons belong to the Calcic Gypsiorthid subgroup and its intergrades.

Floristics

Areal soils host a sparse overstory of Prosopis juliflora and Yucca glauca. Attendant forbs include Coldenia canescens, Gutierrezia sarothrae, Sartwellia sp., Senecio longilobus, and Verbena sp. The Gramineae, represented by Hilaria mutica, Bouteloua spp., Scleropogon brevifolius, Muhlenbergia porteri, and Tridens pulchellus is the dominant component of the floral community.

Cultural Resources

One archaeological site, NMAS 5210, and seven isolated cultural resources (CR) were recorded during the course of this reconnaissance. CR 1 consists of a quartzite hammerstone and two quartzite secondary decortication flakes approximately 150 ft southeast of the center stake. It is situated in the:

SW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$, Section 1, T7S, R25E, NMPM, Chaves County, NM

UTM: Zone 13, N3,733,430; E559,170

Map Reference: USGS EIGHTMILE DRAW QUADRANGLE, 7.5 Minute Series, 1962.

CR 2 consists of a quartzite secondary decortication flake at a point approximately 25 ft north of the southwest corner of the location. It is situated in the:

SW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$, Section 1, T7S, R25E, NMPM, Chaves County, NM

UTM: Zone 13, N3,733,410; E559,110

Map Reference: USGS EIGHTMILE QUADRANGLE, 7.5 Minute Series, 1962.

CR 3 consists of three quartzite primary decortication flakes and two burned limestone cobbles at a point approximately 100 ft southwest of the center stake. It is situated in the:

SW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$, Section 1, T7S, R25E, NMPM, Chaves County, NM

UTM: Zone 13, N3,733,460; E559,140

Map Reference: USGS EIGHTMILE DRAW QUADRANGLE, 7.5 Minute Series, 1962.

CR 4 consists of a quartzite core at a point approximately 150 ft south of the center stake. It is situated in the:

SE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$, Section 1, T7S, R25E, NMPM, Chaves County, NM

UTM: Zone 13, N3,733,440; E559,210

Map Reference: USGS EIGHTMILE DRAW QUADRANGLE, 7.5 Minute Series, 1962.

CR 5 consists of quartzite spalls and one chert core at a point approximately 200 ft east-southeast of the center stake. It is situated in the:

SE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$, Section 1, T7S, R25E, NMPM, Chaves County, NM

UTM: Zone 13, N3,733,440; E559,250

Map Reference: USGS EIGHTMILE DRAW QUADRANGLE, 7.5 Minute Series, 1962.

CR 6 consists of a chert spall and a quartzite secondary decortication flake at a point approximately 100 ft east of the center stake. It is situated in the:

SE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$, Section 1, T7S, R25E, NMPM, Chaves County, NM

UTM: Zone 13, N3,733,480; E559,210

Map Reference: USGS EIGHTMILE DRAW QUADRANGLE, 7.5 Minute Series, 1962.

CR 7 consists of one chert primary decortication flake and three quartzite secondary decortication flake at a point approximately 200 ft east of the center stake. It is situated in the:

SE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$, Section 1, T7S, R25E, NMPM, Chaves County, NM

UTM: Zone 13, N3,733,480; E559,250

Map Reference: USGS EIGHTMILE DRAW QUADRANGLE, 7.5 Minute Series, 1962.

Albeit referred to as isolated cultural occurrences (CR), recorded cultural properties collectively constitute a very light scatter. Criteria presently employed by NMAS, pertaining to site taxonomy, precludes the assignment of these remains to either of NMAS' two minimal types, viz., the occupation zone or the task locus. (See NMAS' definitions at the end of this report.)

NMAS 5210

Location: NW $\frac{1}{4}$ NW $\frac{1}{4}$, Section 1, T7S, R25E, NMPM, Chaves County, NM

UTM: Zone 13, N3,733,600; E559,320

Map Reference: USGS EIGHTMILE DRAW QUADRANGLE, 7.5 Minute Series, 1962.

Ownership: Bureau of Land Management Administration

Dimension of Resources: 244 X 244 m

Typological Designation: Task Locus

Temporality: Unknown

Nature of Cultural Resources: NMAS 5210, a large task locus, is situated on a series of limestone and gypsum outcrops overlooking Fivemile Draw to the north. Locally, this landform is subject to high levels of ephemeral sheetwash. Resources consist of numerous concentrations and light scatters of chert and quartzite primary and secondary decortication flakes, spalls of this material, chert and quartzite cores, quartzite hammerstones, and numerous utilized flakes. This site was used for quarrying lithic material needed for stone-tool

manufacture. Cultural and temporal parameters cannot be given owing to an absence of diagnostic artifacts.

Further examination of this site should yield valuable data pertaining to methods and techniques of stone-tool reduction. Additionally, the establishment of functionally specific areas should further illuminate our understanding of task loci.

Recommendation

NMAS is suggesting clearance for MESA PETROLEUM's proposed location provided the archaeological site is avoided. NMAS 5210's parameters border the northeast corner of the location and hence should be avoided by construction-related activities. (MESA PETROLEUM will not use its full 400 X 400 ft area.) NMAS suggests that a fence be erected at a point 40 ft west and 40 ft south of the northeast corner of the location before construction-related activities commence (Fig. 1). MESA is amenable to this suggestion. If additional cultural resources are encountered, the BLM and NMAS should be notified immediately. Clearance, of course, is granted by the Bureau of Land Management. Men and materiel are to avoid the archaeologically sensitive area.

Definitions 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 lithic 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

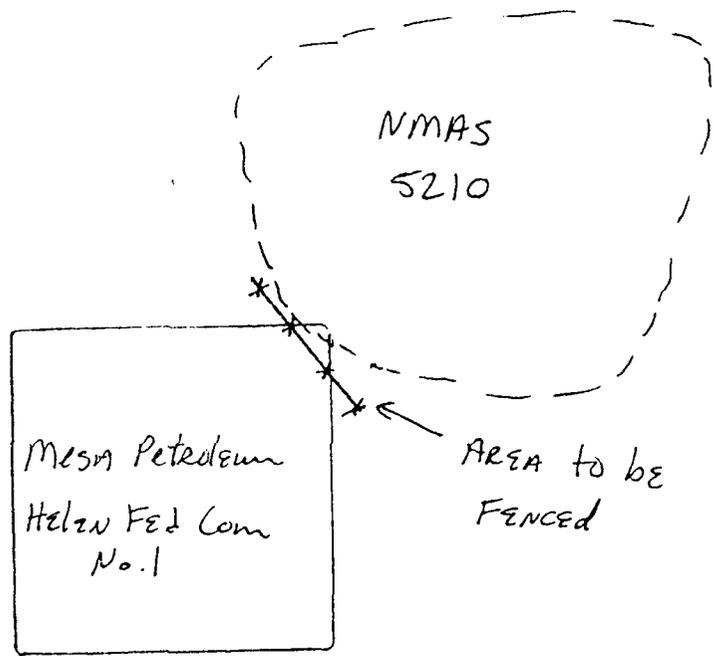


Fig. 1. Schematic representation showing MESA PETROLEUM's proposed Helen Federal Com. Well No. 1 vis à vis NMA5 5210. NMA5 suggests that an area 40 ft west and 40 ft south of the now-staked northeast corner be fenced prior to the initiation of construction-related activities. MESA will not utilize its full 400 X 400 ft pad.

GEOLOGICAL SURVEY

104°22'30"
33°45'

559000m. E.

560

14 MI. TO U.S. 245

20'

3734000m. N.

T. 6 S.

T. 7 S.

3733

3732

3730

42°30'

3729

14 MI. TO U.S. 245

35

36

31

2

1

6

11

12

7

14

13

3635

3680

3677

3676

+CR1
+CR2
CR3
+BC
CR4
CR21 + CR5
CR1 + 5182
CR3

3679
Rattlesnake Well

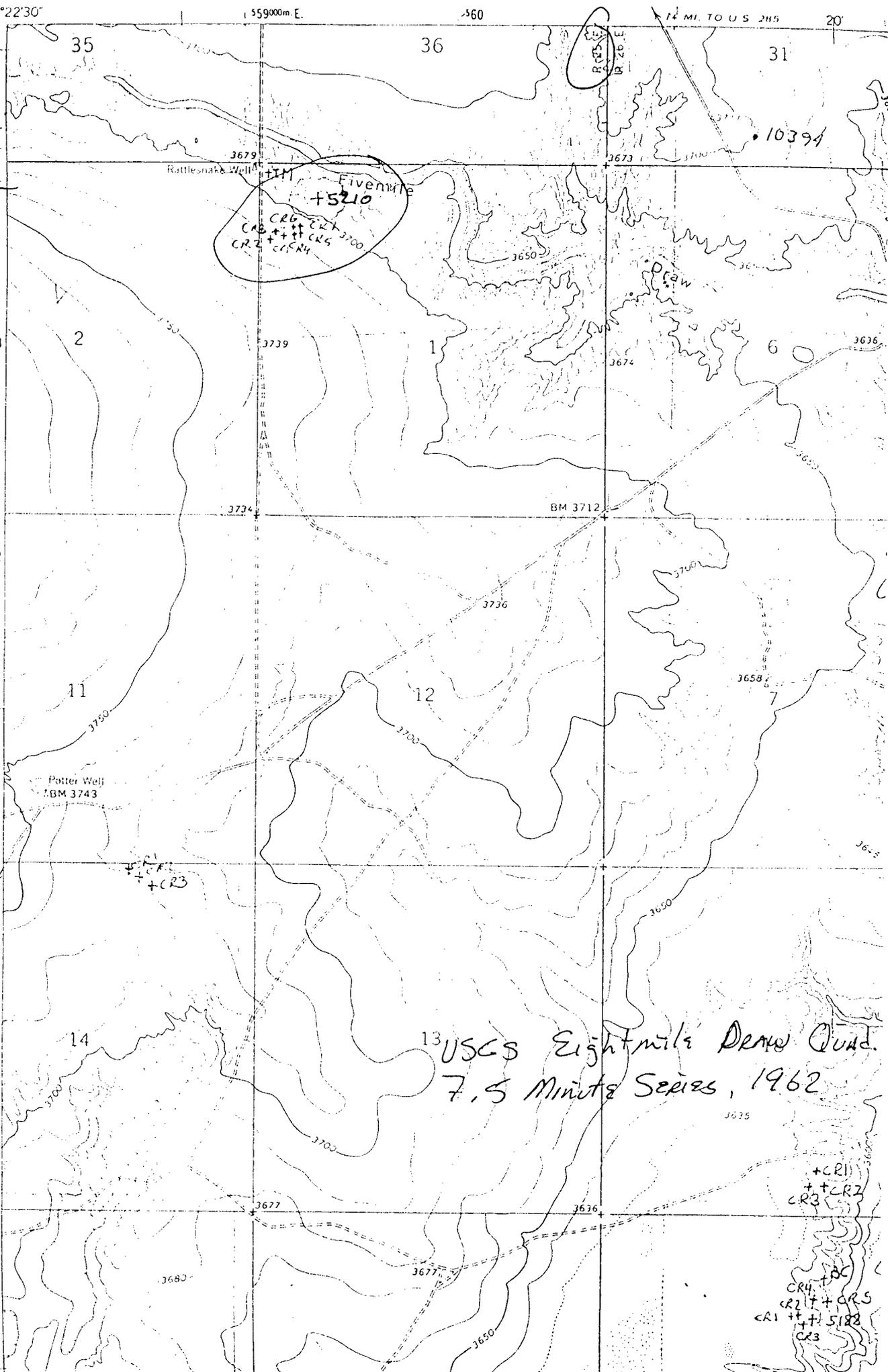
Fiven Mile
+5210
CR6
CR7
CR2
CR5
CR4

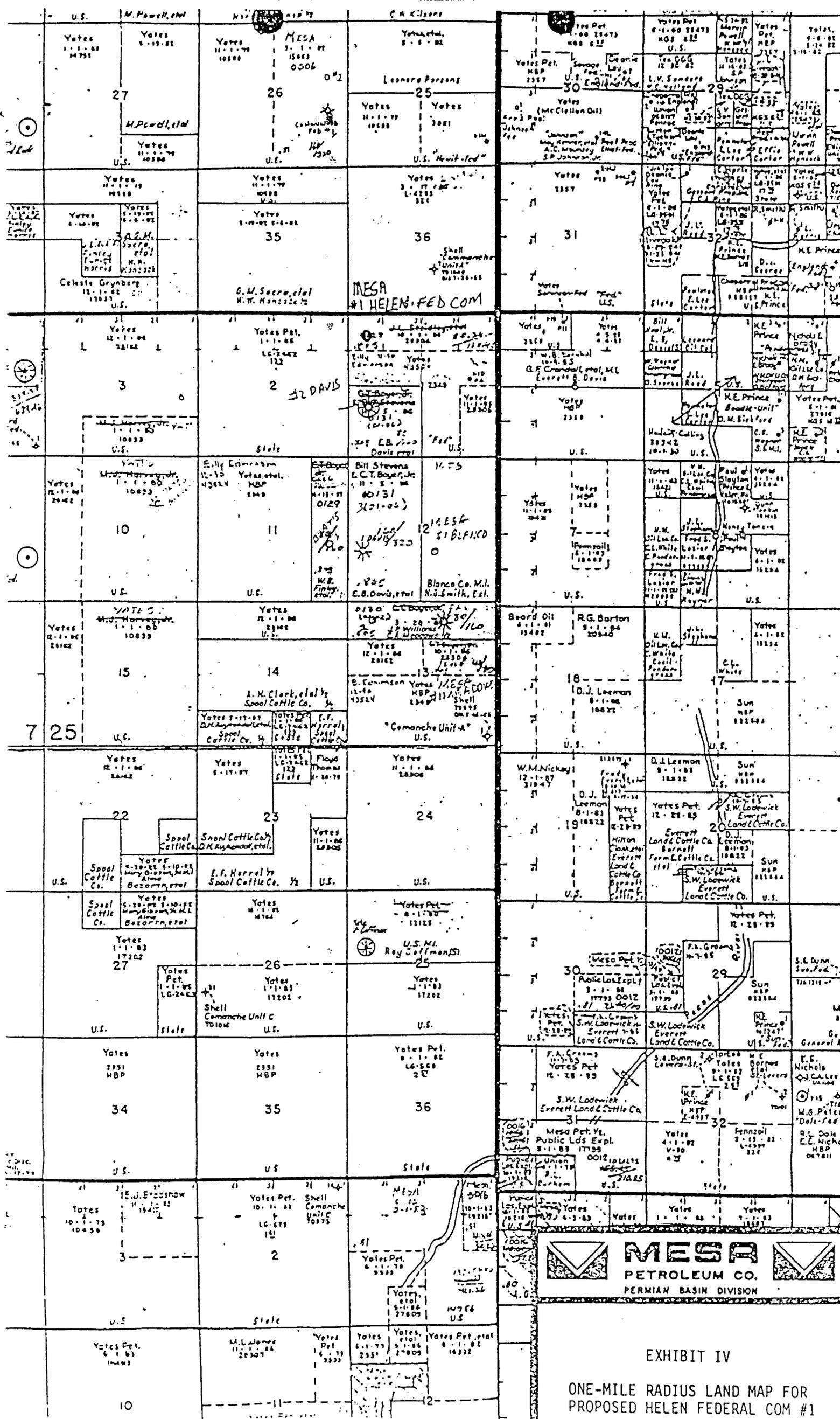
Potter Well
BM 3743

BM 3712

10394

USGS Eight mile Draw Quad.
7.5 Minute Series, 1962





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EXHIBIT IV

ONE-MILE RADIUS LAND MAP FOR
 PROPOSED HELEN FEDERAL COM #1