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W. E. BONDURANT, JR. (1913-1973)
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*NOT LICENSED IN NEW MEXICO

August 20, 1987

Case 9225

Florene Davidson
New Mexico Oil Conservation Division
State Land Office Building
Santa Fe, New Mexico 87501

HAND DELIVERED

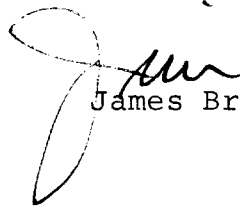
Dear Florene:

Enclosed for filing are an original and two copies of the application of Mesa Grande, Ltd. for force pooling. Please set this matter for the September 23rd hearing.

Thank you.

Very truly yours,

HINKLE, COX, EATON,
COFFIELD & HENSLEY


James Bruce

JGB:jr

RECEIVED

AUG 20 1987

OIL CONSERVATION DIVISION

KELLAHIN, KELLAHIN AND AUBREY

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Karen Aubrey

Jason Kellahin
Of Counsel

September 15, 1987

RECEIVED

SEP 15 1987

OIL CONSERVATION DIVISION

Mr. William J. LeMay
Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87504

"Hand Delivered"

Re: Application of Mesa Grande Ltd.
for Compulsory Pooling
Gavilan Mancos Oil Pool
Rio Arriba County, New Mexico

Dear Mr. LeMay:

On behalf of Sun Exploration and Production Company,
please enter my appearance in Division Case 9225 which is
an application by Mesa Grande Ltd. for compulsory pooling
now set for hearing before Examiner Catanach on September
23, 1987.

Very truly yours,



W. Thomas Kellahin

WTK:ca
Enc.

cc: Owen Lopez, Esq.
Allen R. Tubb, Esq.

KELLAHIN, KELLAHIN AND AUBREY

Attorneys at Law

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September 22, 1987

Owen M. Lopez, Esq.
Hinkle Law Firm
P. O. Drawer 2068
Santa Fe, New Mexico 87504

"Hand Delivered"

Re: Application of Mesa Grande Ltd.
for Compulsory Pooling
NMOCD Case 9225

Dear Owen:

On behalf of Sun Exploration and Production Company, I am confirming our telephone conversation of September 17, 1987, in which you advised that Mesa Grande (OCD Case 9225) now set for hearing on September 23, 1987, would not be heard on that date, and would be continued at Mesa Grande's request.

Very truly yours,

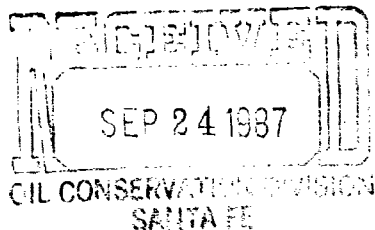
Original signed by

W. Thomas Kellahin

W. Thomas Kellahin

WTK:ca

cc: David Catanach (OCD)
Allen R. Tubb, Esq.
Frank Syfan, Esq.
Mr. John Roe



Mesa Grande, Ltd.

1305 PHILTOWER BUILDING
TULSA, OKLAHOMA 74103

July 25, 1986

Mr. Richard K. Ellis
Jerome P. McHugh & Associates
650 South Cherry Street
Suite 1225
Denver, Colorado 80222

Re: Gavilan Operators Meeting
of June 26, 1986

Dear Mr. Ellis:

We have received and reviewed your six-page letter to the Gavilan Pool working interest owners in regards to the minutes of the above captioned meeting. I am sure that you realize that some very important topics of discussion were omitted. We appreciate receiving such a detailed presentation of the minutes, however, the minutes should be truly reflective of the flavor of the meeting and not written in any fashion to support any one particular view.

For the record, however, key items of discussion that were inadvertently omitted in the minutes are briefly summarized below:

1. Reservoir interpretations and conclusions presented by Al Greer (B-M-G) and McHugh were based on a single porosity system. Mesa Grande, Ltd. stated so at the conclusion of Mr. Greer's presentation, and that such interpretations for a dual porosity system may be different.
2. Meridian Oil Company, Hooper, Kimball & Williams, Inc., Mesa Grande Resources, Inc. and Mesa Grande, Ltd. voiced a strong opinion for the need for an independent engineering study to be conducted. Such a study would determine the ultimate plan of development for the Gavilan Mancos Oil Pool utilizing state-of-the-art technology. An unbiased effort would help assist in fair equity determination if a unit were formed.

3. Over thirty minutes of discussion was held on the appropriateness of Mr. Al Greer (B-M-G) being part of the technical committee. It was pointed out by several parties that Mr. Greer was not a working interest owner in the Gavilan pools, but an offset operator whose goals and objectives may not be consistent with the goals and objectives of the majority of the working interest owners attending the meeting. No consensus to include Mr. Greer in the study group was reached.
4. No vote was taken to approve McHugh's proposal to the make-up and format of the Engineering and Geological Subcommittees. In fact, it was agreed at the meeting of May 1, 1986 that until true equities were established, each working interest owner should have one vote with respect to the study efforts.
5. Mesa Grande, Ltd. asked about the poll of the working interest owners in regards to a future place for meetings to be held at a convenient neutral site location. Such poll was agreed to at the May 1, 1986 meeting. No results were reported.
6. Al Greer reported his well in the SE/4 of Section 6-T25N-R1W, was a tight, low productivity well. This data tended to confirm separation between the Gavilan Mancos Oil Pool and B-M-G's Canada Ojitos (excluding the extreme western area of that unit).

We have not addressed the technical "conclusions" as presented in your letter at this time. However, we will be prepared to present our case in opposition of McHugh's hearing for a reduction of allowables that is scheduled for August 7, 1986.

Very truly yours,

MESA GRANDE, LTD.


Larry D. Sweet

LDS/ds

cc: Working Interest Owners
Bureau of Land Management
New Mexico Oil Conservation Division ✓

MESA GRANDE, LTD.

Application for Compulsory Pooling

Section 20 - T25N - R2W

Rio Arriba County, New Mexico

CASE Number 9225

January 21, 1988

I N D E X

Section A:

Index

Section B - Geology:

- ° Correspondence Regarding Geological Analysis of Section 20
- ° Gavilan Area Structure Map
- ° Section 20 Area Structure Map
- ° Northwest/Southeast Stratigraphic Cross-Section (A-A')
- ° Northeast/Southwest Stratigraphic Cross-Section (B-B')

Section C - Land:

- ° Area Proration Units
- ° Leasehold Ownership Plat
- ° July 8, 1987 Correspondence to Sun
- ° August 18, 1987 Correspondence to Sun
- ° Application of Mesa Grande, Ltd. for Compulsory Pooling

- September 14, 1987 Notification to:
 - Sun Exploration and Production Co.
 - Arriba Company, Ltd.
 - Arco Oil and Gas, Inc.
 - Dugan Production Corp.
 - Kindermac Partners
 - GWR Operating Co.

Section D - Area Production:

- Production Map
- October 1987 Daily Production Rates
- October 1987 Monthly Production Rates
- Gavilan-Mancos Field Total Pool Production
- Individual Well Production Information around Loddy Area

Section E - Pressure Data:

- Gavilan-Mancos Pool
- Loddy Area Wells
- Loddy #1

Section F - Total Pool Production and Predicted Performance

Section G - Economics:

- Loddy #1 No Restrictions
- Loddy #1 with 2nd Well in Section 20
- Undrilled Location Well

Section H - Pool and Individual Well Production Data

MESA GRANDE RESOURCES, INC.

1200 PHILTOWER BUILDING

TULSA, OKLAHOMA 74103

(918) 587-8494

January 19, 1988

Mr. Larry Sweet
Mesa Grande, Ltd.
1307 Philtower Building
Tulsa, Oklahoma 74103

RE: Geological Analysis of E/2 Sec. 20, T25N-R2W
Gavilan Mancos Oil Pool Rio Arriba Co., N.M.

Dear Mr. Sweet:

Per your request, this letter and accompanying maps will serve to detail the geology of the area surrounding the Loddy #1 well for your use in case #9225.

An evaluation of acreage within the greater Gavilan area can best be accomplished by first understanding the general geology of the Gavilan Mancos Oil Pool and its relationship to the productive capacity and ultimate recovery capabilities of individual wells.

The Gavilan Mancos Oil Pool produces from a fractured sequence of interbedded sandstones, siltstones, and shales commonly known as the Niobrara or Gallup interval. The reservoir's dual porosity system is composed of a high flow capacity fracture system and a low flow capacity matrix system. The matrix porosity system involves a combination of low capacity fractures, microfractures, and true sandstone porosity. Sample and core data serve to substantiate the presence of the matrix. Rock compressibility studies have shown that the storage capacity of the reservoir's dual porosity system is decidedly onesided in that greater than 90% of the reservoir resides in the matrix system and less than 10% lies within the high capacity fracture system. However it is this high capacity fracture network that accounts for most of the permeability and high flow rates of the wells.

Natural fracturing can occur anywhere within the 600 plus foot section of the Niobrara-Gallup interval present in the eastern side of the San Juan Basin. In the Gavilan Mancos Oil Pool production logs, wireline logs, and drill cutting analysis have each shown that the majority of the field wide production comes from the Niobrara A and B intervals and to a much lesser extent from the Niobrara C zone. This can be explained by the positive curvature of the Niobrara interval over the Gavilan Dome. Documentation of the productive interval of the pool can be found in Mallon-Mesa Grande's geological testimony and exhibits at the March 30, 1987 Gavilan Mancos Pool hearing.

Mesa Grande, Ltd.

January 19, 1988

Stratigraphic continuity of the Niobrara A,B,C zones within the Gavilan Mancos Oil Pool has never been at issue. The large amount of cross-sections submitted to the OCD have all documented this fact.

Based on my knowledge of the Gavilan area, ongoing studies, and analysis of the Gavilan Mancos Oil Pool, it is my judgement that all acreage under the E/2 of Section 20, T25N-R2W lies within the geological boundaries of and surrounded by production from the Gavilan Mancos Oil Pool. I anticipate that this fact will not be refuted by Sun. Mr. Dick Ellis in Case #8839, while working for McHugh, stated that the narrow section 19 lying to the west of the Loddy #1 was "at least in the pool as he structurally envisioned it".

I hope that the maps and cross-sections that I have included with this letter will assist you in Mesa Grande, Ltd.'s presentation of the geology of the subject acreage within the Gavilan Mancos Pool.

Yours truly,



Alan P. Emmendorfer
Geologist

APE:cs

Enclosures.