MILLER, STRATVERT & TORGERSON, P.A.

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NEW MEXICO BOARD OF SPECIALIZATION RECOGNIZED SPECIALIST IN REAL ESTATE LAW t August 1, 2002 HAND-DELIVERED Mr. Michael Stogner 11 New Mexico Oil Conservation Division 1220 South St. Francis - 14.8.1.1. Santa Fe, New Mexico 87505

Re: NMOCD Case No. 12888; Application of the Fruitland Coalbed Methane Committee

Dear Mr. Stogner:

During the course of the hearing on the above-referenced Application, you allowed the parties the opportunity to submit comments on certain of the underlying data that were requested to be produced after the hearing. The enclosed Affidavit contains comments submitted on behalf of Phillips Petroleum Company on the post-hearing data provided by BP America, Inc. The Affidavit is marked as Phillips Exhibit 19 and I accordingly request that the exhibit be made part of the record in this proceeding.

Thank you.

Very truly yours,

MILLER, STRATVERT & TORGERSON, P.A.

7. I way dall

J. Scott Hall

JSH/glb Enclosure Mr. Michael Stogner August 1, 2002 Page 2

cc: Jim Ball (w/encl.) Steve Jones (w/encl.) Steve Hayden (w/encl.) William. F. Carr (w/encl.) W. Thomas Kellahin (w/encl.) James Bruce (w/encl.) John Dean (w/encl.) David Brooks (w/encl.)

BEFORE THE

OIL CONSERVATION DIVISION

NEW MEXICO DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES

IN THE MATTER OF THE APPLICATION OF THE FRUITLAND COALBED METHANE STUDY COMMITTEE TO AMEND RULES 4 AND 7 OF THE SPECIAL POOL RULES AND REGULATIONS FOR THE BASIN-FRUITLAND COAL GAS POOL AND FOR THE TERMINATION OF THE CEDAR HILLS FRUITLAND BASAL COAL GAS POOL AND THE CONCOMITANT EXPANSION OF THE BASIN-FRUITLAND COAL GAS POOL, RIO ARRIBA, SAN JUAN, MCKINLEY AND SANDOVAL COUNTIES, NEW MEXICO.

CASE NO. 12888

STATE OF NEW MEXICO)) ss. COUNTY OF SAN JUAN)

AFFIDAVIT OF STEVE JONES

Steve Jones, being duly sworn, states:

I am employed by Phillips Petroleum Company as a petroleum engineer. On July 10, 2002, I rendered testimony at the hearing convened by the New Mexico Oil Conservation Division on the Application in this case and at that time had my credentials as an expert witness in the field of petroleum engineering accepted. I am the age of majority and am familiar with and otherwise competent to testify to the matters set forth herein.

During the course of the hearing, BP agreed to provide certain underlying data utilized by it to support testimony by its witnesses relating to drainage areas for coalbed methane wells located in Colorado.

On July 24, Phillips Petroleum received data for 138 wells that BP used to develop Exhibit 15 behind Tab 11 in the hearing materials. BP provided API number, Township/Range/Section/Well Number, reservoir thickness, Langmuir volume, drainage area, current rate, initial pressure, date of initial pressure, recent pressure, and date of recent pressure. Phillips has reviewed this data and comes to the following conclusions:

- 1) BP used an individual Langmuir volume for each well but the average Langmuir volume is 501 scf/ton, in excellent agreement with Phillips' value of 500 scf/ton.
- 2) BP provided only two pressure data points. Although this satisfies the minimum requirements to perform material balance calculations, it limits the ability to analyze well behavior and to determine the accuracy of the results. Many of the wells had pressure data points less than twelve months apart. Material balance calculations performed over such a short time period can be inaccurate because measurement errors are magnified.
- 3) All 138 wells have a pressure data point on 1/1/99. It is difficult to conceive pressure surveys being run in all 138 wells on that date. In fact, the well shown on BP's Exhibit 17 behind Tab 11, the SU 21-6 in the 32-9, was among the 138 wells for which data was provided. Exhibit 17 presumably shows actual measured reservoir pressures taken in the well but does not show any pressure taken on 1/1/99. This suggests that the pressure data provided by BP is not actual measured reservoir pressures but rather pressures from a simulation model, pressures converted from surface measurements, or pressures interpolated from existing material balance plots. In any case the pressure data provided is less desirable than actual pressure measurements. It is also interesting to note that the 19-1;32-8 well has an "initial" pressure on 2/10/99 but a "current" pressure on 1/1/99.
- 4) A significant number of the 138 wells BP provided data for are infill wells that were drilled in 1998 or later. Also, since BP only provided a 1/1/1999 pressure data point in addition to the initial pressure, rather than multiple pressure points for the parent wells prior to the drilling of the infill wells, no independent conclusions can be made about infill well affects on parent wells.
- 5) Phillips performed material balance calculations with the limited pressure data provided by BP and generally came to the same drainage area conclusions. Although the methodology used by both companies is similar, the technique is inadequate for layered reservoirs and will tend to underestimate the composite drainage area when pressure data reflects the high permeability layer.
- 6) Phillips applied the same methodology used in New Mexico to draw a line around "fairway" wells in Colorado. BP's drainage area values were used for the individual wells to determine the average drainage area inside and outside the line. Using BP's values, the average drainage area inside the line, or in the Colorado "fairway", is 310 acres. Outside the line the average drainage area is 147 acres. This conclusion can be visibly seen on BP's Exhibit 15 behind Tab 11. (Drainage Area vs. Highest Rate).
- 7) BP's data, when divided into "fairway" vs. non-"fairway", shows that in general infill drilling is not warranted in the "fairway" areas but is warranted in the non-

"fairway" areas. The data collaborates Phillips' conclusions that were presented at hearing.

FURTHERMORE AFFIANT SAYETH NOT.

Hen ones Steve Jones

Subscribed, sworn to and acknowledged before me on this 1^{s} day of August, 2002, by Steve Jones.

Juante Fairel Notary Public

My commission expires:

· 4/13/2005

Phillips Exhibit No. 19

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