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September 18, 2003

Ms. Lori Wrotenbery, Chairman
Ms. Jami Bailey, Member
Dr. Robert Lee, Member
Oil Conservation Commission
1220 South Saint Francis Drive
Santa Fe, New Mexico 87505

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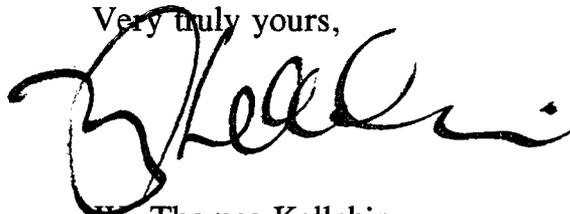
Oil Conservation Division

Re: NMOCD Cases: 13041 and 13042 (De Novo)
Application of EnerQuest Resources, L.L.C
for Statutory unitization and waterflood
project approval, Lea County, New Mexico

Dear Members of the Commission:

On behalf of Key Family Group, please find enclosed our
proposed Commission order the Commission's hearing of the referenced
cases on September 12, 2003.

Very truly yours,



W. Thomas Kellahin

CC:

David R. Brooks, Esq., Attorney for the Commission
James Bruce, Esq., Attorney for Lowe Partners & Rocket Oil & Gas
William F. Carr, Esq. Attorney for EnerQuest

**STATE OF NEW MEXICO
ENERGY, MINEALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION COMMISSION**

**IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION FOR THE PURPOSE OF
CONSIDERING:**

**APPLICATION OF ENERGUEST RESOURCES, CASE 13041
L.L.C. FOR APPROVAL OF A WATERFLOOD
PROJECT AND QUALIFICATION OF THE PROJECT
AREA FOR THE RECOVERED OIL TAX RATE
PURSUANT TO THE ENHANCED OIL RECOVERY ACT,
LEA COUNTY, NEW MEXICO**

**APPLICATION OF ENERQUEST RESOURCES, CASE 13042
L.L.C. FOR STATUTORY UNITIZATION,
LEA COUNTY, NEW MEXICO**

ORDER R-11980-A

**THE KEY FAMILY GROUP'S
PROPOSED ORDER OF THE COMMISSION**

BY THE COMMISSION:

This cause came on for hearing at 9:00 AM on September 12, 2003, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereafter referred to as the "Commission."

NOW, on this ____ day of September, 2003, the Commission, a quorum being present, having considered the testimony, the record and being fully advised,

FINDS THAT:

(1) Due Public notice having been given as required by law, the Commission having jurisdiction of this cause and the subject matter thereof.

(2) In Case No. 13041, EnerQuest Resources, L.L.C. ("EnerQuest") seeks an order statutorily unitizing 920 acres, more or less, located in portions of Section 29 and 32, T18S, R 39E, NMPM, Lea County, New Mexico, for the purpose of instituting a waterflood project within the East Hobbs-San Andres Pool to be called the East Hobbs (San Andres) Unit.

(3) In case No. 13042, EnerQuest Resources, L. L. C. ("EnerQuest") seeks an order a to institute a waterflood project within the area proposed to be unitized.

(4) Cases No. 13041 and No. 13042 were consolidated for hearing on March 27, 2003 before William V. Jones, the Division's Examiner, and based upon the evidenced submitted, recommend to the Division Director that she deny these two application, finding among other things, that EnerQuest's participation formula did not allocate hydrocarbons to the separately owned tracts in the unit in a fair, reasonable and equitable basis.

(5) EnerQuest timely appeal the Division's denial to the Commission and a de novo hearing has been held.

(6) The Statutory Unitization Act (NMSA 1978 Sections 70-7-1, et seq., as amended) provides (in Section 70-7-6.A(6)) that before the Division can grant an application for statutory unitization, the Division must find, inter alia, "that the participation formula contain in the unitization agreements allocates that production and saved hydrocarbons to the separately owned tracts in the unit area on a fair, reasonable and equitable basis."

(7) In support of its contention that its participation formula is “fair, reasonable and equitable,” EnerQuest presented its petroleum engineer who concluded that it is. However, a careful review of his testimony when compared to a careful review of the geologic evidence submitted by EnerQuest demonstrates that:

- (a) EnerQuest’s petroleum engineer’s assumptions, upon which his opinions are basis, are only as reliable as the accuracy of EnerQuest’s geologic and reservoir properties assumptions about the San Andres P2-P4 zones;
- (b) A substantial problem in determining a participation formula for the proposed unit area, is the fact that 6 of the 12 tracts have no wells completed in the P2 through P4 zones, thus precluded access to reservoir engineer data from which to estimate original oil in place, remaining oil in place, estimates of ultimate recovery (“EUR”) per tract, and the relative value of each tract to all tracts in the unit area;
- (c) This is made more difficult by a review of EnerQuest’s geologic interpretation of the San Andres reservoir within the proposed unit area. For example, EnerQuest Exhibit 11 that discloses the San Andres is a very heterogeneous reservoir with a few feet of extremely high permeability separated by thick sections of low or non-permeable reservoir. Not only does this stratification of the San Andres have a negative impact on waterflood performance, but it also makes it impossible to value each tract for secondary recovery purposes;
- (d) The difficulty of the task is compounded by EnerQuest choice of a proposed unit area that contains a small area of good P2-P4 producers core (Tracts 7 & 8) surrounded by a ring of marginal and non-production tracts (Tracts 2, 3, 4, 9, 10, and 11) that creates serious doubt about the relative value of all tracts in the unit area as well as raises questions about the unit area itself. While individual well performance in the P2-P4 interval was not presented it can be obtained from the completion records and production graphs posted below the logs on EnerQuest Exhibit 12. This information shows that only the Laney A-1, Laney Reese 2 and 3 and C.O. Davis 2 and 5, located high on the structure (Exhibit 10), were good commercial producers in the P2-P4 interval. The Laney A-1 and A-3 are marginal producers and all other

attempts at completing the P2-P4 were non-commercial due to high water volumes;

- (e) In addition, Tracts 1, 5, 6, 7, 8, and 12 while open in the P2-P4 zones, produced substantial all of their oil from the P1 zone which is being excluded from the waterflood project; See EnerQuest Exhibit 12
- (f) In addition to the problems with determining primary EUR, there are problems in trying to determine net pay criteria and productive limits that prevent the calculation of direct indicators of secondary potential (net pay, pore volume, OIP) due primarily to the mobile water saturations present though most of the P2-P4 intervals as indicated by the high water saturations on the Sw curves and high water cuts from the completion records on nearly all the P2-P4 producers as indicated on Exhibit 12;
- (g) EnerQuest has failed to adequately define the reservoir productive limits (their exhibits show no boundary between productive tracts and tracts proven to be nonproductive), the lowest depth nor a net pay criteria, and are thereby unable to provide a reasonable estimate of original oil in place calculation for determining primary recovery or quantifying the mobile oil target for waterflood in the proposed unit area;
- (h) EnerQuest failed to submit a waterflood forecast model to show either the fairness of this formula or the feasibility of its proposed waterflood.

(8) The Commission should find that EnerQuest has provided insufficient evidence to demonstrate that its proposed participation complies with Section 70-7-6.A(6).

(9) The Commission also should find that EnerQuest has failed to submit sufficient evidence from which the Commission can comply with the requirements of Section 70-7-6.B and determine that:

“The relative value, from the evidence introduced at the hearing, taking into account the separately owned tracts in the unit area, exclusive of physical equipment, for the development of oil and gas by unit operations, and the

production allocated to each tract shall be the proportion that the relative value of each tract so determined bears to the relative value of all tracts in the unit.”

(10) EnerQuest’s evidence failed to adequately address the large volumes of water that have been tested and/or produced from the P2-P4 zones. See EnerQuest Exhibit “11”, leaving question unanswered about which zones have mobile water, what are the sources of that water, is this natural water encroachment, what are the fluid volumes, what are the correct R_w and S_w values.

(11) Despite the Commission desire to accommodate the desires of EnerQuest and a majority of the working interest owners, the Commission cannot ignore its statutory obligations and the fact that EnerQuest has failed to provide sufficient evidence that includes the following:

- (a) Failure to submit its Craig, Giffin and Morse waterflood prediction model of the 40-acres single pattern upon which its engineer based his opinions;
- (b) Failure to submit its “history match” of assumed predictions with actual data;
- (c) Failure to submit evidence of how its engineer can estimate that the waterflood project will recover 8.8 million barrels of additional oil without calculating the amount of primary production to support his estimate of the primary recovery factor;
- (d) Failure to submit evidence of how its engineer can conclude that all tracts in the proposed unit are being treated on a “fair, reasonable and equitable basis” without calculating the original oil in place;
- (e) Failure to submit evidence of how its engineer can conclude that the unit area has been properly defined when out of 920 acres some 480 acres are non-productive from the P2-P4 zones.
- (f) Failure to submit evidence of how it is possible for its engineer to conclude that all tracts are being treated on a “fair, reasonable, and equitable basis, when we believe that Tracts 9 and 10 would not make any contribution to the waterflood project.

- (g) Failure to reconcile its engineer's testimony in regards to the net pay isopach (Exhibit 11) at all tracts in the unit will contribute to the waterflood with his response to a specific questions about Tract 10 that it will not benefit from the waterflood project.

(12) The Commission should denied EnerQuest's application.

IT IS THEREFORE ORDERS THAT:

(1) The applications of EnerQuest Resources, L. L.C. are hereby **DENIED**.

(2) Jurisdiction of this cause is retained for the entry of such further orders as the Division or Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and years hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

LORI WRONTENBERY, CHAIR

JAMIE BAILEY, MEMBER

ROBERT LEE, MEMBER

SEAL