STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION HOBBS DISTRICT OFFICE

GARREY CARRUTHERS

11-30-88

POST OFFICE BOX 1980 HOBBS, NEW MEXICO B8241-1980 (505) 393-6161

DHC-714

OIL CONSERVATION DIVISION P. O. BOX 2088 SANTA FE, NEW MEXICO 87501

RE: Proposed:

MC		
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PMX_		

Gentlemen:

I have examined the application for the:

Jia Energy Inc. BQ #1-P 17-22-37 Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

Yours very truly, Jerr Sexton Supervisor, District 1

Paul Kautz, OCD Deologist, Concurs W/ Zia Energy zones for queen, GB & SA.

/ed

P. O. BOX 2219

ZIA ENERGY, INC.

HOBBS, NEW MEXICO 88240

November 23, 1988

Department of Energy & Minerals Oil Conservation Division P.O. Box 2088 Santa Fe, New Mexico 87504

Attention: Mr. David R. Catanach Engineer

> Re: Request for Administrative Approval for Downhole Commingling For B J No. 1 - P well, located SE/4 - SE/4 17-22S-37E Lea County, New Mexico

Dear Mr. Catanach:

In a telephone conversation with you on Monday, November 21, 1988, we discussed the above described well. By way of review for you, this well was drilled and completed by Millard Deck in February, 1974. We have enclosed a copy of the OCD approved C-105 and C-104. From this you will note that the perforated interval was given as 3473' - 3863'. These perforations includes portions of the Queen, Grayburg, and San Andres formations. This means that the Eumont, Penrose-Skelly and Eunice San Andres Southwest fields have all been commingled in the well bore from the time of initial completion. This situation came to our attention after we purchased the well from Warrior, Inc., who was successor to Millard Deck. We request your cooperation in obtaining administrative approval for downhole commingling.

This well became uneconomical for Warrior to produce and the well was shut-in in March, 1986. The well has not produced since that time. We hope to get your approval to downhole commingle before we return the well to producing status.

Zia Energy, Inc., P.O. Box 2219, Hobbs, N.M. 88240, is requesting administrative approval to downhole commingle production from the B J No. 1 well and to store the production in our surface facility. The B J lease, well No. 1, located 660' FSL and 660' FEL of Section 17, Township 22 South, Range 37 East, Lea County, New Mexico, has perforations which includes portions of the Eumont, Penrose-Skelly and Eunice San Andres Southwest fields.

A plat of the area has been included showing the acreage dedicated to the B J No. 1 and the ownership of all offsetting leases.

Your Rule 303 (C - Downhole Commingling) sets forth information that should be submitted. Rule 303 - C - 2 (d) requests a current C-116, 24 hour productivity test. Since this well has not been produced for 2 1/2 years, we have enclosed the last C-116 submitted in 1985.

Rule 303 C - 2 - (e) requests a production decline curve for each zone. A decline curve is submitted but it is for the composite production from all three zones. We have enclosed Form C-105 which gives the only available completion history. A tabulation of the annual production has been included.

Rule 303 C - 2 - (f) requests on estimated botton-hole pressure for each artificially lifted zone. As noted on the C-105 a pump was installed in the initial completion. Based on the casing pressure and fluid level after being shut-in for 2 1/2 years, it is estimated the bottomhole pressure is 575 psig.

Rule 303 C - 2 - (g) requests information concerning fluid characterists. No fluids are presently available from this well. However, a check made of water produced from nearby wells in each of the three fields indicate a potential for minor calcium carbonate scaling. This should not be a problem due to the solubility of the calcium carbonate in HCL acid.

Rule 303 C - 2 - (h) requests information about the value of the commingled production. Production from all three zones is priced on the same basis for both oil and gas, therefore the value of oil and gas produced and sold from the commingled stream will be the same as if the streams were produced and sold separately. It should be noted that by your approval of continued downhole commingling production, the economic life of the well can be reestablished and extended, thereby increasing recovery and revenue from all three formations.

Rule 303 C - 2 - (i) requests a formula for allocation of production to each of the three zones. Since it would not be economically practical at this time to get production data from each zone separately, we suggest that an arbitrary formula be used and that the formula be based on estimated net productive feet, production history of nearby wells that have produced one or more of these three zones and the estimated bottom - hole pressure. The Queen perforations from 3473' to 3620' are estimated to have 25' of net pay but this zone has been drained by offset producing wells to a much greater extent than the other two zones. The Grayburg perforations from 3680' to 3772' is estimated to have 15' of net pay. Offsetting wells have resulted in some drainage from the Grayburg. The San Andres perforations from 3812' to 3863' is estimated to have 15' of net pay. The San Andres formation has been produced the least of these three formations. Using the information that is available to us, we recommend that the Eumont (Queen) be given 20%, the Penrose-Skelly (Grayburg) be given 35% and Eunice San Andres Southwest (San Andres) be given 45% of the oil and gas production. This is the most realistic allocation formula that we can propose considering the information that is available to us.

We have attached a copy of the letter that is being sent to each offset operator. A list of these offset operators and their addresses is also attached.

Our purpose in requesting administrative approval for downhole commingling is to clean up the paperwork on a well we have recently purchased. This completion was approved in 1974 by the OCD, but due to the overlapping perforations, there is a need for approval of the downhole commingling which has been occurring from the beginning. If it were deemed necessary to test these zones separately or to squeeze any of the zones, it would make the well uneconomical and plugging would occur. Then oil and gas reserves would needlessly be left in the ground.

If you have any questions concerning this request, please give us a call.

Yours truly,

-arris Hilson

Farris Nelson

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	Christmas, Zia, BJ	Anadarko Cole	
Bett	is, Boyle & Stovall Patsy	Anadarko L a nglie Mattix ,	Penrose Sand Unit
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