

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION AZTEC DISTRICT OFFICE

1000 RIO BRAZOS ROAD AZTEC, NEW MEXICO 87410 (505) 334-6178

	CONSERVATION DIVISION				
BOX 2 SANTA	N FE NEW MEXICO 87501		-		
DATE_	Sont. 76, 19 81		•		
RE:	Proposed MC Proposed DHC Proposed NSL Proposed SWD Proposed WFX Proposed PMX				
Gent ha	lemen: ve examined the applic	ation dated	angust ?	7,1987	
for	ve examined the application the Stone Control Operator	Jic	milla 119/U	#0 M-	8.26AU-41W
	Operator	/	Lease and Wel	I NO.	0111C, 3-19K
and	my recommendations are	as follows	:		
	man and a				
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You	rs truly,				
	7,50				



P. O. BOX 4289 FARMINGTON, NEW MEXICO 87499-4289

PHONE: 505-325-2841

August 27, 1984

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

Subject: Downhole Commingle

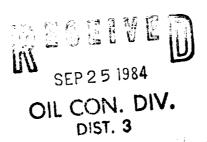
Jicarilla 119 N #8 (MD)

Unit M, Section 8, T26N, R4W Rio Arriba County, New Mexico

Dear Mr. Ramey:

El Paso Exploration Company requests administrative approval to downhole commingle the production from the Jicarilla 119 N #8 gas well located in Unit M, Section 8, T26N, R4W, Rio Arriba County, New Mexico. This well produces from the Blanco Mesa Verde and Basin Dakota pools. El Paso Exploration owns 100% working interest in both producing intervals and feels that downhole commingling is the most efficient way to produce the well. Additionally, the well has been found to have a packer leak and the current tubing configuration is non-conducive for effective gas flow to the surface. These items will be addressed in the following two paragraphs.

In May 1983, the annual packer leakage test indicated communication between the zones. We have confirmed the leakage from in-house testing conducted in June 1984. As can be seen from the enclosed well schematic, there are two locations where a leak can exist; at the Otis packoff (5782') within the 2-3/8" tubing string, or at the Baker packer (7178'). Shut-in pressures for the Mesa Verde and Dakota zones taken during the May 1983 packer leakage test are 637 psig and 629 psig, respectively. The corresponding bottom hole pressures are calculated to be 701 psig and 692 psig, respectively. The ratio of the bottom hole pressures is 1.01/1.00, therefore, no migration of gas or liquids will occur since neither zone is pressured over 50% of the other.





Mr. Joe Ramey August 27, 1984 Page 2

In addition to the communication between zones, it is felt that a 25% increase in production will be realized if the well is commingled due to the present tubing configuration. The Dakota production has to flow through a choke located above the packer at 7178' and then enters 1" tubing at 5784'. The Mesa Verde production enters the 2-3/8" tubing and must flow through the 1" by 2-3/8" annulus to the surface. These restrictions greatly increase the friction in the well and impede smooth fluid flow to the surface. To illustrate this effect, a similar situation can be cited on the Jicarilla 119 N #4. This well was also a Mesa Verde-Dakota dual that was commingled in February 1977. It lies in Section 6, just to the northwest of the subject well. It, too, had the same tubing configuration as the No. 8 well. After the workover, the commingled gas production was 231 MCFPD (averaged over 10 months) versus a combined gas production prior to the workover of 194 MCFPD (averaged over 12 months). The No. 8 well can be expected to perform in the same fashion, given the similarities between the two.

The attached production decline curve shows a substantial jump in the Mesa Verde production, corresponding at about the same time that the packer leak was detected. It is anticipated that when the restrictions are removed from the wellbore the Mesa Verde will continue producing at present levels or greater and the Dakota will increase in production. The expected commingled rate should be at least 250 MCFPD. Present oil rates are $\pm \frac{1}{4}$ BOPD for each reservoir. These rates should increase to 2-3 BOPD. Both zones also produce a trace of water, but not enough to cause any formation damage due to commingling.

It is proposed that future production be allocated based on estimated remaining reserves. Mesa Verde reserves are 890 MMcfg and Dakota reserves are 410 MMcfg. Neither reservoir has oil reserves assigned to them. Therefore, based on these reserves, 68% of the gas production would be allocated to the Mesa Verde pool and 32% would be allocated to the Dakota pool. All oil produced should be split (50% Mesa Verde-50% Dakota) since each zone produces roughly the same small amounts.

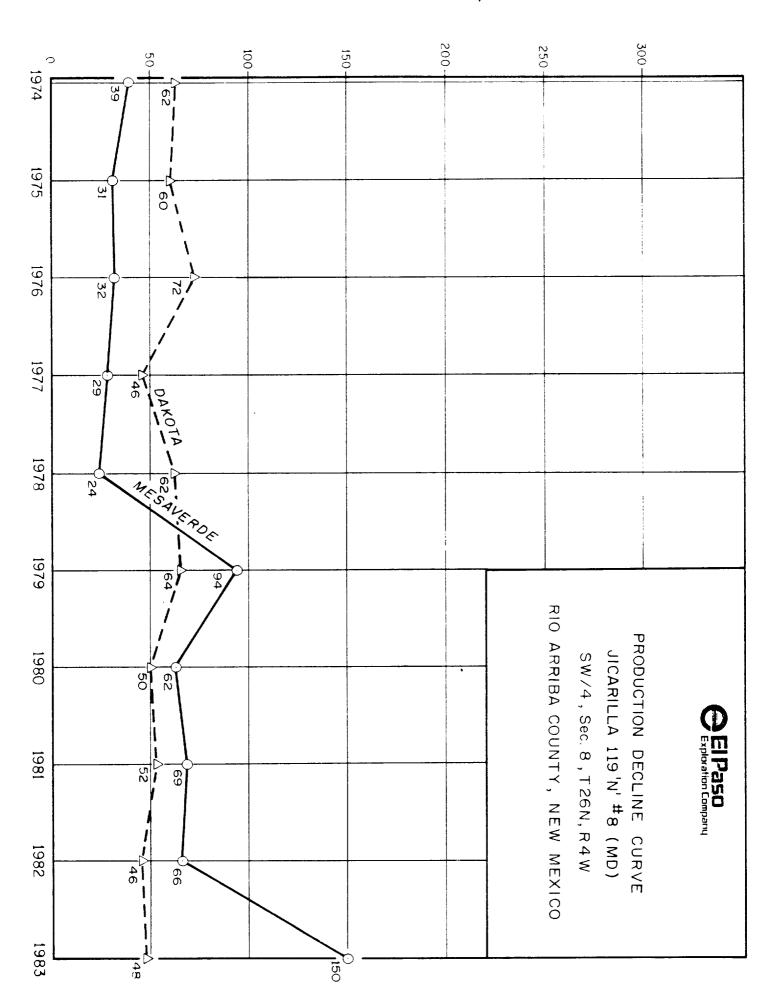
All offset operators of the proposed commingling application, including the Bureau of Land Management, have been notified.

A well location plat, offset ownership plat, production decline curves, and productivity tests are also attached to this proposal.

Sincerely,
Song Musself
Doug Mussett

Production Engineer

DM:as Enclosures



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PRODUCTION DEPARTMENT
WELL DELIVERABILITY SYSTEM
SAN JUAN DELIVERABILITY AND SHUT-IN PRESSURE TEST SUMMARY--EPNG

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WELL NAME....JICARILLA 119 N #8 DK

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NE'V MEXICO OIL CONSERVATION COMMISSION

REVISED

Well Location and Acreage Dedication Plat

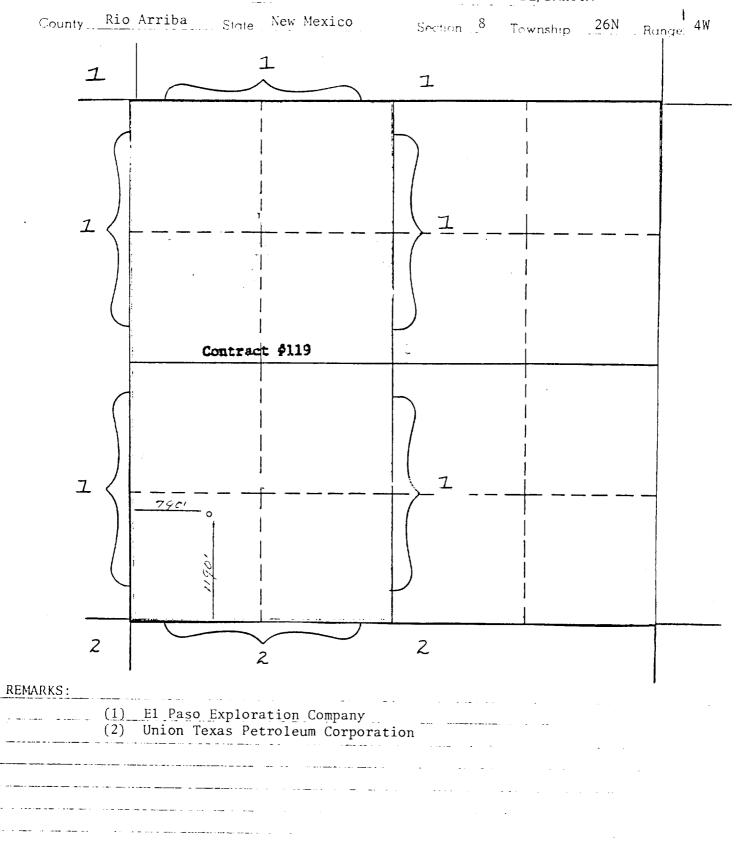
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Well Name _ Jicarilla 119 N #8

NM-8607

Footage--- 1190' FSL, 790' FWL

APPLICATION TO COMMINGLE MESAVERDE/DAKOTA



/ MESAVERDE DATA: TOP OF MESAVERDE: 5153 BOTTOM OF MESAVERDE: 5810 PEFORATIONS: 5156-5162', 5170-5174', 5202-5206', 5218-5226', 5232-5236', 5244-5250', 5266-5284', 5344-5348', BARSH Ross HANGER OF 3654" 5384-5388', 5434-5446', 5484-5490', 7 % Casing at 3760' 5554-5560', 5592-5596', 5604-5608', 5668-5704', 5718'-5722', 5726-5730', 5734-5738', 5750-5770', GRANEROS DATA: TOP OF GRANEROS : 7670' BOTTOM OF GRANEROS: 7826' PERFORATIONS: 7696-7734', 7744-7758', 163 m 2.42 Tubme: 1- 4" @ 5765' 1- 14" @ 5748' 1- 14" @ 5777' 7774-7782, 7798-7804'. 1- 1/4 x 1/8 @ 5757-• DAKOTA DATA . OTIS PACKAGE AT TOP OF DAKOTA : 7826" 1" THEME AT 5723 76" BOTTOM OF DAKOTA: 7910' 7828-7858', 7864-7870', 7874-7880', DIAGRAMATIC SKETCH OF DUAL GAS Dtis Side-Door Choke COMPLETION FOR "N" WELL 8-8 ut 7177 rate: Baker "EEJ" Packer at 7178.1 PRODUCTION NORTHWEST CORPORATION ALBUQUERQUE. NEW MEXICO 2 3/8" Tubing at 7676.3° APPLICATION FOR DUAL GAS COMPLETION OF "N" WELL 8-8 IN MESAVERDE AND GRANEROS-DAKOTA FORMATION 5 1/2" Liner RIO ARRIBA COUNTY at 7909 96 NEW MEXICO CONTRACT ## 119 Drawn! W.H. McGaher Scale 400° m1' Approved | Ray Phillips



P. O. BOX 4289 FARMINGTON, NEW MEXICO 87499-4289

PHONE: 505-325-2841

August 27, 1984

Union Texas Petroleum Corporation 4001 Bloomfield Highway Farmington, New Mexico 87401

Re: Jicarilla 119 N #8 (MD)
Unit M, Section 8, T26N, R4W
Rio Arriba County, New Mexico

Gentlemen:

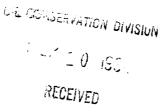
El Paso Exploration Company has requested administrative approval to downhole commingle the production from the Blanco Mesa Verde and Basin Dakota pools in its Jicarilla 119 N #8 well. El Paso feels that commingling production is the most efficient manner to produce this well.

In compliance with New Mexico Cil Conservation Division rules, we are notifying you, as operator of an offsetting proration unit, of our application for administrative approval to downhole commingle the Jicarilla 119 N #8. Enclosed are three copies of this letter. If there are no objections to this application, please sign and return one copy to the New Mexico Oil Conservation Division, Post Office Box 2088, Santa Fe, New Mexico 87501; one copy to El Paso Exploration Company at the above address; and keep the remaining copy for your records.

A well location and offset ownership plats are enclosed.

Sincerely, Longles W. Mussett Douglas W. Mussett
DWM:as WAIVER
hereby waives objection to El Paso Exploration Company's application for downhole commingling its Jicarilla 119 N #8 well as proposed above.
By:





P. O. BOX 4289 FARMINGTON, NEW MEXICO 87499-4289

PHONE: 505-325-2841

August 27, 1984

Union Texas Petroleum Corporation 4001 Bloomfield Highway Farmington, New Mexico 87401

Re: Jicarilla 119 N #8 (MD)
Unit M, Section 8, T26N, R4W
Rio Arriba County, New Mexico

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By:

Well Location and Acreage Dedication Plat

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APPLICATION TO COMMINGLE MESAVERDE/DAKOTA

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(2) Union Texas Petroleum Corporat	ion			
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NM-8607				(ı



September 6, 1984

New Mexico Oil Conservation Division Post Office Box 1088 Santa Fe, NM 87501

Jicarilla 119 N #8 (MD) Unit M, Section 8, T26N, R4W

Rio Arriba County, NM

Gentlemen:

At El Paso Exploration Company's request, we have executed the attached waiver of objection for their request to downhole commingle the Jicarilla 119 N #8.

Sincerely,

Donald B. Wells

Division Operations Manager

DBW:bea Enclosure