

**STATE OF NEW MEXICO
ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION**

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

**CASE NO. 12138
Order No. R-11188**

**APPLICATION OF PHILLIPS PETROLEUM COMPANY FOR THE
ESTABLISHMENT OF A DOWNHOLE COMMINGLING REFERENCE CASE
FOR ITS SAN JUAN 31-6 UNIT PURSUANT TO DIVISION RULE 303.E. AND
THE ADOPTION OF SPECIAL ADMINISTRATIVE RULES THEREFOR, RIO
ARRIBA COUNTY, NEW MEXICO.**

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on March 18, 1999, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 25th day of May, 1999, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner,

FINDS THAT:

- (1) Due public notice has been given and the Division has jurisdiction of this case and its subject matter.
- (2) Cases No. 12136, 12137, 12138 and 12139 were consolidated at the time of the hearing for the purpose of testimony.
- (3) The applicant, Phillips Petroleum Company (Phillips), pursuant to the provisions of Division Rule 303.E., seeks to establish a downhole commingling "reference case" to provide exceptions for (a) marginal economic criteria, (b) pressure criteria, (c) allocation formulas, and (d) modification of notice rules on a unit-wide basis for downhole commingling of Dakota, Mesaverde, Fruitland Coal and Pictured Cliffs gas production within existing or future drilled wells within the San Juan 31-6 Unit located in Townships 30 and 31 North, Ranges 6 and 7 West, NMPM, Rio Arriba County, New Mexico.
- (4) Division Rule 303.E. currently states:

"If sufficient data exists on a lease, pool, formation, geographic area, etc., so as to render it unnecessary to repeatedly provide such data on Form C-107-A, an operator may except any of the various criteria required under Paragraph 303.D. of this rule by establishing a "reference case". The Division, upon its own motion or by application from an operator, may establish "reference cases" either administratively or by hearing. Upon Division approval of such "reference cases" for specific criteria, subsequent applications to downhole commingle (Form C-107-A) will be required only to cite the Division order number which established such exceptions and shall not be required to submit data for those criteria."

(5) The applicant is the current operator of the San Juan 31-6 Unit, which encompasses some 10,050 acres, more or less, in Townships 30 and 31 North, Ranges 6 and 7 West, NMPM, Rio Arriba County, New Mexico.

(6) Within the San Juan 31-6 Unit, the applicant currently operates thirty-four (34) Basin-Dakota Gas Pool wells, twenty-six (26) Blanco-Mesaverde Gas Pool wells, thirty-five (35) Basin-Fruitland Coal Gas Pool wells, and one (1) Undesignated-Pictured Cliffs Gas Pool well.

(7) According to its evidence and testimony, Phillips seeks to:

- a) establish a "reference case" for marginal economic criteria in the Basin-Dakota and Blanco-Mesaverde Gas Pools whereby these pools may be identified as "marginal" on Form C-107-A's subsequently filed for wells within the San Juan 31-6 Unit. The applicant further proposes that the data provided in the immediate case serve as supplemental data or confirmation that these pools should be classified as "marginal";
- b) establish a "reference case" for pressure criteria in the Basin-Dakota and Blanco-Mesaverde Gas Pools whereby the Division may utilize the data provided in the immediate case to verify the pressure data provided on Form C-107-A's subsequently filed for wells within the San Juan 31-6 Unit;
- c) establish a "reference case" whereby the Division utilizes the data presented in the immediate case to endorse or approve certain methods of allocating production whereby the applicant need not submit additional data or justification when proposing a certain method of allocating production on Form C-107-A's subsequently filed for wells within the San Juan 31-6 Unit; and

- d) establish a "reference case" or an administrative procedure for authorizing the downhole commingling of existing or future drilled wells within the San Juan 31-6 Unit without additional notice to each affected interest owner as required by Rule No. 303.D.

(8) In support of its request to except marginal economic criteria, the applicant presented engineering evidence and testimony indicating that within the San Juan 31-6 Unit:

- a) the average estimated Mesaverde and Dakota ultimate recoverable gas reserves within the San Juan 31-6 Unit on a per well basis are approximately .69 BCFG and 1.69 BCFG, respectively;
- b) the average initial producing rate for a Mesaverde and Dakota gas well (either newly drilled or recompleted) is approximately 315 MCFGD and 335 MCFGD, respectively; and
- c) the estimated ultimate gas recoveries and initial producing rates from the Mesaverde and Dakota formations within the San Juan 31-6 Unit are insufficient to justify drilling stand alone wells and/or dually completed wells to recover such gas reserves.

(9) The evidence and testimony presented by the applicant indicates that the Blanco-Mesaverde and Basin-Dakota Gas Pools within the San Juan 31-6 Unit should be properly classified as "marginal".

(10) In support of its request to except pressure criteria within the Mesaverde and Dakota formations within the San Juan 31-6 Unit, the applicant presented engineering evidence and testimony indicating that:

- a) the average shut-in bottomhole pressure within the Mesaverde and Dakota formations at the time of initial development was approximately 1,300 psi and 3,313 psi, respectively; and
- b) the average current shut-in bottomhole pressure within the Mesaverde and Dakota formations is approximately 536 psi and 1260 psi, respectively.

(11) Testimony by the applicant indicates that the pressure data described above was obtained from three (3) Mesaverde and six (6) Dakota wells within the San Juan 31-6 Unit.

(12) The applicant presented insufficient pressure data within the San Juan 31-6 Unit area to except pressure criteria.

(13) The applicant testified that various allocation methods would be utilized for downhole commingled wells within the San Juan 31-6 Unit depending on the circumstances. Some of the methods and circumstances are described as follows:

- a) in those instances where a newly completed zone is commingled with an existing producing interval with an established decline, the subtraction method will be utilized for a period of +/- 12 months. Subsequent to that time, and assuming that the production rate has stabilized, a fixed allocation will be determined and utilized; and
- b) in those instances where a well is newly drilled, the lower zone will be production tested for a period of several weeks to several months, whatever time period is necessary to establish a stabilized production rate. A production forecast will then be obtained from the lower zone based upon the stabilized production rate. The upper zone will be completed and the subtraction method will be utilized for a period of +/- 12 months. Once the production rate has stabilized, a fixed allocation will be determined and utilized.

(14) The allocation methods proposed by the applicant are routinely utilized by industry and approved by the Division and therefore the proposal to except allocation methods should be approved.

(15) In support of its request to establish a "reference case" or administrative procedure whereby additional notice of Form C-107-A within the San Juan 31-6 Unit need not be given to interest owners, the applicant presented evidence and testimony indicating that:

- a) the interest ownership between zones within a given wellbore in the San Juan 31-6 Unit is generally not common;
- b) pursuant to Rule No. 303.D., it is currently required to notify all interest owners within the San Juan 31-6 Unit every time a Form C-107-A is submitted to the Division. There are a considerable number of such interest owners within the unit;
- c) the downhole commingling of wells within the San Juan 31-6 Unit will benefit working, royalty, and overriding royalty interest owners. In addition, the downhole commingling of wells within the San Juan 31-6 Unit should not violate the correlative rights of any interest owner; and
- d) no interest owner appeared at the hearing in opposition to the establishment of a "reference case" or administrative procedure for notice.

(16) An administrative procedure should be established within the San Juan 31-6 Unit for obtaining approval for subsequently downhole commingled wells without notice to unit interest owners, provided however that the applicant shall comply with all other provisions contained within Division Rule 303.C.

(17) Approval of the proposed "reference case" for marginal economic criteria, allocation formulas and notice will lessen the burden on the applicant insofar as providing the data required pursuant to Division Rule 303.D. and Form C-107-A, will provide the applicant a streamlined method for obtaining downhole commingling approval within the San Juan 31-6 Unit, and will not violate correlative rights.

IT IS THEREFORE ORDERED THAT:

(1) The application of Phillips Petroleum Company to establish a "reference case" for a) marginal economic criteria within the Blanco-Mesaverde and Basin-Dakota Gas Pools, b) allocation formulas, and c) modification of notice rules on a unit-wide basis for downhole commingling of Dakota, Mesaverde, Fruitland Coal and Pictured Cliffs gas production within existing or future drilled wells within the San Juan 31-6 Unit, Rio Arriba County, New Mexico, is hereby approved.

(2) The application of Phillips Petroleum Company to establish a "reference case" for pressure criteria on a unit-wide basis for downhole commingling of Blanco-Mesaverde and Basin-Dakota Gas Pools within the San Juan 31-6 Unit is hereby denied.

(3) Upon filing of Form C-107-A's for wells subsequently downhole commingled within the San Juan 31-6 Unit, the applicant shall not be required to submit supporting data: (a) to justify the classification of the Blanco-Mesaverde and Basin-Dakota Gas Pools as "marginal" and (b) support or justify the utilization of a given method or formula for allocation of production, provided however, in the event any of the data described above appearing on Form C-107-A appears to be beyond the data range provided in this case, the Division may require the submittal of additional supporting data.

(4) In order to obtain Division authorization to downhole commingle wells within the San Juan 31-6 Unit, the applicant shall file Form C-107-A with the Santa Fe and Aztec Offices of the Division. Such application shall contain all the information required under Division Rule 303.C., provided however that the applicant shall not be required to provide notice to all interest owners within the San Juan 31-6 Unit of such proposed commingling.

(5) Jurisdiction is hereby retained for the entry of such further orders as the Division may deem necessary.

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

STATE OF NEW MEXICO
CIVIL CONSERVATION DIVISION

Lori Wrotenbery

LORI WROTENBERY
Director

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FACSIMILE COVER SHEETDATE: April 13, 1999
TIME: 12:40 PM

NUMBER OF PAGES: -6-

TO: David R. Catanach
OF: OCD
FAX NO: 505.827.8177REF: NMOCD Cases 12136 to 12139
Phillips Petroleum Company for
Downhole Commingling**MESSAGE:**

Dear Mr. Catanach:

In accordance with your request at the hearing of the referenced cases held on March 18th, please find attached a copy of Phillips' pressure data.

Please call me if you have any questions.

Regards


W. Thomas Kellahin

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Phillips Petroleum
February 1999 Production (MMCFD)

Unit	Fruitland	Mesaverde	Dakota	PC
29-6	65.7	28.6	2.5	0.1
31-6	38.7	1.9	5.6	0.0
32-7	39.8	4.3	0.6	3.0
32-8	86.9	2.8	0.1	0.6

Phillips Petroleum Company **Recent BHP Estimates**

29-6 Unit

	Mesaverde		Dakota	
	WH	BHP	WH	BHP
#1	380	456		
#1A	370	444		
#4A	360	432		
#6	479	575		
#7A	400	480		
#8A	220	264		
#8Y	376	451		
#9	240	288		
#9A	200	240		
#10A	350	420		
#12A	320	384		
#13A	320	384		
#14	440	528		
#14A	320	384		
#15	463	556		
#15A	250	300		
#17	240	288		
#17A	300	360		
#18A	380	456		
#19	440	528		
#19A	424	509		
#20	469	563		
#20A	320	384		
#21	350	420		
#21A	300	360		
#27A	410	492		
#33	384	461	824	989
#35	435	522	835	1002
#38A	440	528		
#45	436	523		
#47	340	408	290	348
#66A	280	336		
#70	280	336		
#70A	300	360		
#71	413	496		
#71A	360	432		
#72A	220	264		
#73	250	300		
#73A	340	408		
#74	456	547		
#85			900	1080
#93			771	925
#102			674	809

31-6 Unit

	Mesaverde		Dakota	
	WH	BHP	WH	BHP
#3A	442	530		
#7A	447	536		
#9	220	264		
#10	494	593		
#12	360	432		
#14	449	539		
#16	429	515	462	554
#19	489	587		
#22	448	538		
#24E			800	960
#25			701	841
#25E			1059	1271
#27			1012	1214
#27E			789	947
#28			1119	1343
#28E			510	612
#29	491	589		
#30	518	622		
#31			849	1019
#31E			961	1153
#33			756	907
#33E			916	1099
#35			917	1100
#35E			840	1008
#38			1099	1319
#38E			1055	1266
#39			460	552
#39E			1015	1218
#40			636	763
#44			410	492
#45			415	498
#46			1010	1212
#47			985	1182
#49			1076	1291
#51			1012	1214
#53	361	433	731	877

32-7 Unit

	Mesaverde		Dakota	
	WH	BHP	WH	BHP
#2	526	631		
#7	414	497		
#8	426	511		
#9	375	450		
#10	360	432		
#11	351	421		
#14	406	487		
#15	479	575		
#16A	900	1080		
#17	322	386		
#18	576	691		
#19	504	605		
#24	445	534		
#25	491	589		
#26	537	644		
#27	445	534		
#27A	422	506		
#28	446	535		
#28A	519	623		
#29	350	420		
#30	569	683		
#32	564	677		
#34			766	919
#36	514	617	539	647
#37	596	715	150	180
#37A	618	742		
#39	223	268	337	404
#41A	496	595		
#44			960	1152
#46	360	432		
#75	391	469		
#76	592	710		
#79	411	493		
#83	510	612		

32-8 Unit**Mesaverde**

	WH	BHP
#5	768	922
#10	748	898
#11A	280	336
#12	318	382
#12A	211	253
#13	481	577
#20	858	1030
#23	546	655
#25	400	480
#31	400	480
#40	196	235
#42	394	473
#45	423	508
#46	448	538
#49	408	490

Dakota

WH	BHP
856	1027
926	1111