

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

Production limitation factors

BEFORE EXAMINER STAMETS OIL CONSERVATION DIVISION COSTA PERMITS EXHIBIT NO. <u>9</u> CASE NO. <u>8204</u> Submitted by _____ Hearing Date _____ CASE NO. 6232 Order No. R-5832

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

APPLICATION OF YATES PETROLEUM
CORPORATION FOR AN UNORTHODOX GAS
WELL LOCATION, EDDY COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on May 17, 1978,
at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 29th day of September, 1978, the Division
Director, having considered the testimony, the record, and the
recommendations of the Examiner, and being fully advised in the
premises,

FINDS:

(1) That due public notice having been given as required
by law, the Division has jurisdiction of this cause and the
subject matter thereof.

(2) That the applicant, Yates Petroleum Corporation, seeks
approval of an unorthodox gas well location for its Cities "JG"
Well No. 1 to be located 660 feet from the South line and 660
feet from the East line of Section 13, Township 18 South, Range
24 East, NMPM, to test the Morrow formation, in an Undesignated
Morrow Gas Pool, Eddy County, New Mexico.

(3) That the E/2 of said Section 13 is to be dedicated to
the well.

(4) That a well at said unorthodox location will better
enable applicant to produce the gas underlying the proration unit.

(5) That the offset operators have objected to the proposed
location.

(6) That a well at the proposed location is at a standard
location relative to the East and West lines of said Section 13.

(7) That a well at the proposed location is 67 percent closer to the South line of said Section 13 than permitted by Division Rules and Regulations.

(8) That a well at the proposed location will have an area of drainage in the Morrow formation which extends an additional 67.2 net acres outside Section 13, an amount of acreage equivalent to 21 percent of a standard proration unit in said pool.

(9) That to offset the advantage gained over the protesting offset operators, production from the well at the proposed unorthodox location should be limited from the Morrow formation.

(10) That such limitation should be based upon the variation of the location from a standard location and the 67.2 net-acre encroachment described in Finding No. (9) above, and may best be accomplished by assigning a well at the proposed location an allowable limitation factor of 0.71 (100 percent East/West factor plus 33 percent North/South factor plus 79 percent net-acre factor divided by 3).

(11) That in the absence of any special rules and regulations for the prorationing of production from said Undesignated Morrow Gas Pool, the aforesaid production limitation factor should be applied against said well's ability to produce into the pipeline as determined by periodic well tests.

(12) That the minimum calculated allowable for the subject well should be reasonable, and 1,000,000 cubic feet of gas per day is a reasonable figure for such minimum allowable.

(13) That approval of the subject application subject to the above provisions and limitations will afford the applicant the opportunity to produce its just and equitable share of the gas in the subject pool, will prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and will otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That an unorthodox gas well location for the Morrow formation is hereby approved for the Yates Petroleum Corporation's Cities "JG" Well No. 1 to be located at a point 660 feet from the South line and 660 feet from the East line of Section 13, Township 18 South, Range 24 East, NMPM, Undesignated Morrow Gas Pool, Eddy County, New Mexico.

(2) That the E/2 of said Section 13 shall be dedicated to the above-described well.

(3) That said well is hereby assigned a Production Limitation Factor of 0.71 in the Morrow formation.

(4) That in the absence of any Special Rules and Regulations prorating gas production in said Undesignated Morrow Gas Pool, the special rules hereinafter promulgated shall apply.

(5) That the following Special Rules and Regulations for a non-prorated gas well at an unorthodox location shall apply to the subject well:

SPECIAL RULES AND REGULATIONS
FOR THE
APPLICATION OF A "PRODUCTION LIMITATION FACTOR"
TO A NON-PRORATED GAS WELL

APPLICATION OF RULES

RULE 1. These rules shall apply to the Yates Petroleum Corporation Cities "JG" Well No. 1, located 660 feet from the South line and 660 feet from the East line of Section 13, Township 18 South, Range 24 East, NMPM, Eddy County, New Mexico, which well's Production Limitation Factor of 0.71 shall be applied to the well's deliverability (as determined by the hereinafter set forth procedure) to determine its maximum allowable rate of production.

ALLOWABLE PERIOD

RULE 2. The allowable period for the subject well shall be six months.

RULE 3. The year shall be divided into two allowable periods commencing at 7:00 o'clock a.m. on January 1 and July 1.

DETERMINATION OF DELIVERY CAPACITY

RULE 4. Immediately upon connection of the well the operator shall determine the open flow capacity of the well in accordance with the Division "Manual for Back-Pressure Testing of Natural Gas Wells" then current, and the well's initial deliverability shall be calculated against average pipeline pressure.

RULE 5. The well's "subsequent deliverability" shall be determined twice a year, and shall be equal to its highest single day's production during the months of April and May or October and November, whichever is applicable. Said subsequent deliverability, certified by the pipeline, shall be submitted to the appropriate District office of the Division not later than June 15 and December 15 of each year.

RULE 6. The Division Director may authorize special deliverability tests to be conducted upon a showing that the well has been worked over or that the subsequent deliverability determined under Rule 5 above is erroneous. Any such special test shall be conducted in accordance with Rule 4 above.

RULE 7. The operator shall notify the appropriate district office of the Division and all offset operators of the date and time of initial or special deliverability tests in order that the Division or any such operator may at their option witness such tests.

CALCULATION AND ASSIGNMENT OF ALLOWABLES

RULE 8. The well's allowable shall commence upon the date of connection to a pipeline and when the operator has complied with all appropriate filing requirements of the Rules and Regulations and any special rules and regulations.

RULE 9. The well's allowable during its first allowable period shall be determined by multiplying its initial deliverability by its production limitation factor.

RULE 10. The well's allowable during all ensuing allowable periods shall be determined by multiplying its latest subsequent deliverability, as determined under provisions of Rule 5, by its production limitation factor. If the well shall not have been producing for at least 60 days prior to the end of its first allowable period, the allowable for the second allowable period shall be determined in accordance with Rule 9.

RULE 11. Revision of allowable based upon special well tests shall become effective upon the date of such test provided the results of such test are filed with the Division's district office within 30 days after the date of the test; otherwise the date shall be the date the test report is received in said office.

RULE 12. Revised allowables based on special well tests shall remain effective until the beginning of the next allowable period.

RULE 13. In no event shall the well receive an allowable of less than one million cubic feet of gas per day.

BALANCING OF PRODUCTION

RULE 14. January 1 and July 1 of each year shall be known as the balancing dates.

RULE 15. If the well has an underproduced status at the end of a six-month allowable period, it shall be allowed to carry such underproduction forward into the next period and may produce such underproduction in addition to its regularly assigned allowable. Any underproduction carried forward into any allowable period which remains unproduced at the end of the period shall be cancelled.

RULE 16. Production during any one month of an allowable period in excess of the monthly allowable assigned to the well shall be applied against the underproduction carried into the period in determining the amount of allowable, if any, to be cancelled.

RULE 17. If the well has an overproduced status at the end of a six-month allowable period, it shall be shut in until such overproduction is made up.

RULE 18. If, during any month, it is discovered that the well is overproduced in an amount exceeding three times its average monthly allowable, it shall be shut in during that month and during each succeeding month until it is overproduced in an amount three times or less its monthly allowable, as determined hereinabove.

RULE 19. The Director of the Division shall have authority to permit the well, if it is subject to shut-in pursuant to Rules 17 and 18 above, to produce up to 500 MCF of gas per month upon proper showing to the Director that complete shut-in would cause undue hardship, provided however, such permission shall be rescinded for the well if it has produced in excess of the monthly rate authorized by the Director.

RULE 20. The Division may allow overproduction to be made up at a lesser rate than permitted under Rules 17, 18, or 19 above upon a showing at public hearing that the same is necessary to avoid material damage to the well.

GENERAL

RULE 21. Failure to comply with the provisions of this order or the rules contained herein or the Rules and Regulations of the Division shall result in the cancellation of allowable assigned to the well. No further allowable shall be assigned to the well until all rules and regulations are complied with. The Division shall notify the operator of the well and the purchaser, in writing, of the date of allowable cancellation and the reason therefor.

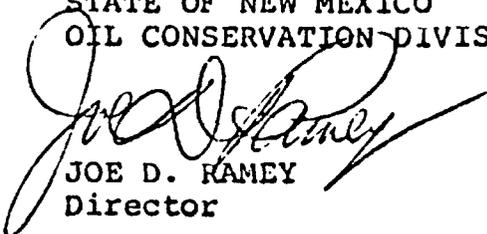
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Case No. 6232
Order No. R-5832

(6) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year herein-
above designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION



JOE D. RAMEY
Director

S E A L

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Docket No. 30-83
 Case 8204
 Costa Resources, Inc.
 S/2 Section 2, T18S, R 28E
 Eddy County, New Mexico

PROXIMITY OF WELLS (Approximate)

Section 35, T17S, R 28E
 Section 2, T18S, R 28E
 Section 1, T18S, R 28E

	<u>Amoco South Empire Empire Deep Unit #6</u>	<u>Arco State Bx #1</u>	<u>Costa Two Forks State #1</u>	<u>Costa Two Forks State #2</u>
Amoco South Empire Deep Unit #6	X	7600'	6800'	4800'
Arco State Bx#1	7600'	X	1350'	4500'
Costa Two Forks State #1	6800'	1350'	X	3350'
Costa Two Forks State #2	4800'	4500'	3350'	X

BEFORE EXAMINER STAMETS
 OIL CONSERVATION DIVISION
Costa EXHIBIT NO. 10
 CASE NO. 8204
 Submitted by _____
 Hearing Date _____

Docket No. 30-84
Case 8204
Costa Resources, Inc.
S/2 Section 2, T18S, R 28E
Eddy County, New Mexico

DATA SHEET - ARCO STATE BX #1

- Well Location: 660 FSL & 1980' FEL Section 35, T17S, R 28E
- Completion Date: 6-12-82
- Perforated Interval: Morrow Sand @ 10590' -10594', 10704' -10706',
10714' -10722'
- Original Completion Production Rate: 762 MCF of Gas per Day
- Subsequent Production Rate: 1633 MCF of Gas per Day on 10-27-82
- Cumulative Production @ 3-31-84: 912 Million Cubic Feet of Gas
- Current Production: (EST) 1555 MCF of Gas per Day

Company	Costa
Case No.	8204
Section	11
Survey	
Well Name	

Docket No. 30-84
Case 8204
Costa Resources, Inc.
S/2 Section 2, T18S, R 28E
Eddy County, New Mexico

DATA SHEET - COSTA TWO FORKS STATE #1

- Well Location: 660' FNL & 2090' FEL Section 2, T18S, R 28E
- Completion Date: 1-16-84
- Perforated Interval: Morrow Sand @ 10707'-10711'
- Original Completion Production Rate: 1685 MCF of Gas per Day
- Subsequent Production Rate: After Acid Job 5-17-84: 3082 MCF of Gas per Day
- Cumulative Production @ 7-13-84: 183 Million Cubic Feet of Gas
- Current Production: 3329 MCF of Gas per Day

BEFORE EXAMINER JAMES
OIL CONSERVATION DIVISION
<i>Costa</i> EXHIBIT NO. <i>#12</i>
CASE NO. <i>8204</i>
Submitted by _____
Hearing Date _____

Docket No. 30-84
 Case 8204
 Costa Resources, Inc.
 S/2 Section 2, T18S, R 28E
 Eddy County, New Mexico

PRESSURE HISTORY

Section 35, T17S, R 28E
 Section 2, T18S, R 28E
 Section 1, T18S, R 28E

Completion
 9/13/75

<u>DATE</u>	<u>WELL</u>	<u>SHUT IN BOTTOM HOLE PRESSURE-PSI</u>
9-30-75	Amoco South Empire Deep Unit #6	4009(66 Hrs)
6-18-82	Amoco South Empire Deep Unit #6	1397(72 Hrs)
10-27-82	Arco State Bx#1	3646(44 Hrs)
6-11-84	Costa Two Forks State #1	3063(71 Hrs)
7-13-84	Costa Two Forks State #1	2928(71 Hrs)

BEFORE EXAMINER STAMETS
 OIL COMMISSION DIVISION
 COSTA 13
 CASE NO. 8204
 Submitted by _____
 Planning Date _____