

Case No.

432

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Application, Transcript,  
Small Exhibits, Etc.

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

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

CASE NO. 432  
ORDER NO. R-221

THE APPLICATION OF SHELL OIL  
COMPANY FOR AN ORDER GRANTING  
PERMISSION TO DUALY COMPLETE  
AND PRODUCE ITS SHELL STATE "M",  
WELL NO. 1, LOCATED IN LOT 8 OF  
SECTION 1, TOWNSHIP 21 SOUTH, RANGE  
35 EAST, NMPM, LEA COUNTY, NEW  
MEXICO, IN THE EUNICE-MONUMENT  
POOL.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a. m. on November 20, 1952, at Santa Fe, New Mexico, before the Oil Conservation Commission, hereinafter referred to as the "Commission".

NOW, on this ~~20~~<sup>th</sup> day of ~~November~~ 1952, the Commission, a quorum being present, having considered the records and the testimony adduced, and being fully advised in the premises,

FINDS:

(1) That due notice having been given as required by law, the Commission has jurisdiction of the case and the persons and subject matter thereof.

(2) That applicant's Shell State "M" No. 1 well, Lot 8, Section 1, Township 21 South, Range 35 East, NMPM, Lea County, New Mexico, was completed in February 1937 as an oil well producing from the Queen-Grayburg formation in the open-hole interval 3697-3847 feet, having drilled through the Yates-Seven Rivers gas zone at an approximate depth of 3000-3600 feet.

(3) That although recent experiments tend to show that mechanical packers and other devices are ordinarily available for successful dual/multiple completions of oil - gas wells, the Commission is unconvinced of the soundness, as a waste-prevention practice, of such dual/multiple completions as a general practice in New Mexico without specific controls over each such project.

IT IS THEREFORE ORDERED:

That the applicant herein, Shell Oil Company, be, and it hereby is authorized to dually complete and produce its Shell State "M", No. 1 well, located in Lot 8, Section 1, Township 21 South, Range 35 East, NMPM, Lea County, New Mexico, in such a manner that gas from the Yates-Seven Rivers formation may be produced through the annular space between the casing and the tubing, and oil from the Queen-Grayburg formation through the tubing by proper perforations and the installation of a proper packer or packers;

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PROVIDED, HOWEVER, That subject well shall be completed, and thereafter produced, in such a manner that there will be no commingling within the well bore, either within or outside the casing of gas, oil and gas, or oil produced from either or both of the separate strata, and,

PROVIDED FURTHER, That said subject well for dual completion and production shall be equipped in such a way that reservoir pressures may be determined separately for each of the two specified strata, and further, be equipped with all necessary connections required to permit recording meters to be installed and used, at any time, as may be required by the Commission or its representatives, in order that natural gas, oil, or oil and gas from each separate stratum may be accurately measured and the gas-oil ratio thereof determined, and,

PROVIDED FURTHER, That the operator applicant shall make any and all tests, including segregation tests, but not excluding other tests and/or determinations at any convenient time and in such manner as deemed necessary by the Commission; the original, and all subsequent tests shall be witnessed by representatives of the Commission and by representatives of offset operators, if any there be, at their election, and the results of each test properly attested to by the applicant herein and all witnesses, and shall be filed with the Commission within ten (10) days after the completion of such test, and,

PROVIDED FURTHER, That upon the actual dual completion of such subject well, applicant shall submit to the Commission a diagrammatic sketch of the mechanical installation which was actually used to complete and produce the seal between the strata, and a special report of production, gas/oil ratio and reservoir pressure determination of each producing zone or stratum immediately following completion.

IT IS FURTHER ORDERED, That jurisdiction of this cause is hereby retained by the Commission for such further order or orders as may seem necessary or convenient for the prevention of waste and/or protection of correlative rights; upon failure of applicant to comply with any requirement of this order after proper notice and hearing, the Commission may terminate the authority hereby granted and require applicant or its successors and assigns to limit its activities to regular single-zone production in the interests of conservation.

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

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION



EDWIN L. MECHEM, Chairman



GUY SHEPARD, Member



R. R. SPURRIER, Secretary

S E A L

Case 432,



SHELL OIL COMPANY

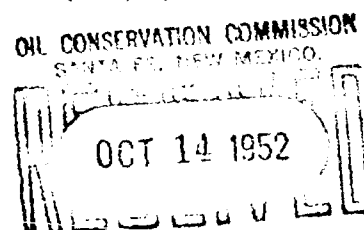
THIS LETTER IS FROM OUR  
FIELD OFFICE

AT Los Alamos  
New Mexico

October 7, 1952

Subject: Application to Dually Complete  
Shell State K-1, Tuniac Field,  
Los Alamos, New Mexico as a Yates-  
Seven Rivers (Gas)-Queen-Grayburg (Oil)  
Well

Oil Conservation Commission  
State of New Mexico  
Santa Fe, New Mexico



Gentlemen:

By means of this application the Shell Oil Company wishes to state the following:

(a) That Shell State K-1, located in Lot 8 of Section 1, T-21-S, R-36-E, was completed in February, 1937 at a total depth of 3047 feet. The appended Exhibit A shows the location of this and all other wells on the Shell State K lease together with the locations of all offset wells.

(b) That the said well was completed as an oil well producing from the interval 3699-3847 feet in the Queen-Grayburg formation after having been drilled through the Yates-Seven Rivers gas productive interval extending from approximately 3000 feet to 3670 feet. The appended Exhibit B is a type log of the Tuniac-Monument area. It is planned to run a radio-active survey of Shell State K-1 during the dual completion operation and a copy of the log will be filed with the Commission.

(c) That the applicant proposes to (1) perforate the 7-inch casing opposite the Yates-Seven Rivers gas-productive horizons and (2) set a Baker retainer production packer at approximately 3870 feet in the 7-inch casing. The exact interval(s) to be perforated will be selected after the above-mentioned radio-active survey has been completed.

(d) That the applicant proposes to dually complete the said well to produce oil from the Queen-Grayburg formation through the tubing and gas from the Yates-Seven Rivers formation through the 7-inch casing. The manner and method of the proposed dual completion are shown on Exhibit C.

(e) That the granting of this application for permission to produce dually oil from the Queen-Grayburg formation and gas from the Yates-Seven Rivers formation is in the interests of conservation and the protection of correlative rights.

October 7, 1958

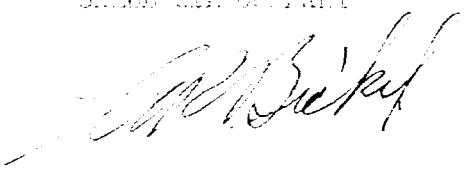
(f) That the applicant will do such things as may be required of it by the New Mexico Oil Conservation Commission in the maintenance of separation of production from said two horizons.

(g) That the manner and method of the proposed dual completion is mechanically feasible and practical.

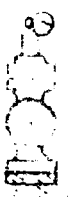
Therefore, the Shell Oil Company requests that the Oil Conservation Commission set a certain day upon which this application may be heard and after said hearing to grant permission in order that the applicant may dually complete Shell State 1-1 so that oil from the Queen-Crawford formation may be produced through the tubing and gas from the Yates-Seven Rivers formation through the casing.

Respectfully submitted,

SHELL OIL COMPANY

  
BY: C. A. Michel

Tree Showing Rams Closed



Oil Production

Gas Flow Line

9 5/8" Casing Cemented @ 12991  
w/ 375 SXS. neal

Casing Test Perforated  
w/ 4 .21 grain shots / foot  
Approx. from 12991 to 13001

9 5/8" Casing Cemented @ 1697' w/ 372 sxs neat

Casing Not Perforated w/ 4 1/2" open slots / feet Approx. From 3000' to 3400'

Otis Side Door Choke Blanked Off @ 3690'

Baker Model 'D' Retainer Production Packoff Set @ 3670'

7" Casing Cemented @ 3697' w/ 372 sxs neat

Tubing Perforations

TD 3847'

Detail of Mechanical Equipment to be Installed in Dually Completed Eunice and Monument Wells for Submission to Oil Conservation Commission