

RICHARDSON AND BASS  
FORT WORTH NAT'L BANK BLDG.  
FORT WORTH, TEXAS

September 28, 1960

Mr. Malcolm Long  
State Land Office  
Santa Fe, New Mexico

Re: State Lease E-2519  
Tonto Deep Unit

Dear Sir:

In reply to your recent inquiry regarding the producing status of the No. 1 Tonto Deep Unit during the months of November and December 1959 and January 1960, we wish to advise the following.

This well actually did produce during those months, although we are informed the Oil Conservation Commission reports did not reflect this to be the fact. This well is produced by a Kobe Pumping Unit which circulates the oil in the well, rather than the conventional method ordinarily used. As we stated, there is an explanation as to the discrepancy in the reports.

During September 1959 this well pumped 70 barrels of oil and a small undetermined amount of water. During October it produced 19 barrels of oil and a small amount of water. Due to the sharp decline in production, the well was pumped every other day during November 1959; however, after drawing off the water from the power oil tank, no production came over into the stock tanks. It is estimated that approximately 15 barrels of oil were produced during November along with a few barrels of water.

During the months of December 1959 and January 1960, the well was kept on production making approximately 12 and 10 barrels of oil respectively during these two months, along with small quantities of water. No oil went over into the stock tanks because of the water drawn off the power oil tank. However

Mr. Malcolm Long  
September 28, 1960  
Page 2

the well was subjected to pumping action and produced both oil and water. In February 1960, the power oil tank became full and three additional barrels of oil went over into the stock tanks.

We trust that this is the necessary information for you to correct your records; however, in the event additional information or an affidavit is necessary, we will be only too happy to furnish same.

We want to thank you most kindly for calling this matter to our attention.

Cordially yours,

RICHARDSON & BASS



Howard W. Jennings

/jdb

cc: The Oil Conservation Commission ✓  
State Capital  
Santa Fe, New Mexico



Case #1514

# CONTINENTAL OIL COMPANY

Box 1291  
Roswell, New Mexico  
February 8, 1960

Mr. A. L. Porter, Jr.  
Secretary-Director  
New Mexico Oil Conservation Commission  
Mabry Hall, State Capitol  
Santa Fe, New Mexico

Dear Mr. Porter:

Re: Tonto Deep Unit Agreement  
Lea County, New Mexico

We enclose herewith one photostatic copy of Application for Extension of Time Within Which to Further Comply with the Drilling Requirements of the Unit Agreement, Lea County, New Mexico.

This application was approved by the Commissioner of Public Lands on November 30, 1959 and has been approved by the Director of the USGS. The time for commencement of the second well has been extended by reason of the approval of this application to June 2, 1960.

Very truly yours,

A handwritten signature in cursive script, appearing to read "T. Allen".

Thomas Allen  
Ass't. Land Superintendent  
Roswell Division

TA-ls

Enc

cc: Mr. T. J. Mathers  
Fort Worth, Texas



IN REPLY REFER TO:

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY  
WASHINGTON 25, D. C.

C-10261

JAN 13 1960

Continental Oil Company  
c/o Hervey, Dow & Hinkle  
Hinkle Building  
Roswell, New Mexico

Gentlemen:

On January 13, 1960, Arthur A. Baker, Acting Director of the Geological Survey, approved your application for a six-month extension of time expiring June 2, 1960, within which to commence the second test well under the Tonto Deep unit agreement, New Mexico, No. 14-08-001-5294.

Enclosed are two copies of the approved application for your records. It is assumed that you will furnish the State of New Mexico and any other interested principal with whatever evidence of this approval is deemed appropriate.

Very truly yours,

For the Director

Enclosures 2

C-10261

APPROVAL BY COMMISSIONER OF PUBLIC LANDS

The undersigned Commissioner of Public Lands of the State of New Mexico does hereby approve the above and foregoing application for an extension of time of six months from December 2, 1959, within which to commence operations upon a second test well upon the Tonto Deep Unit Area, subject to approval by the Director of the United States Geological Survey.

DATED this the 30<sup>th</sup> day of November, 1959.

  
Commissioner of Public Lands

APPROVAL BY THE DIRECTOR,  
UNITED STATES GEOLOGICAL SURVEY

The undersigned Director of the United States Geological Survey does hereby approve the above and foregoing application for an extension of time of six months from December 2, 1959, within which to commence operations upon a second test well upon the Tonto Deep Unit Area.

DATED this the 13<sup>th</sup> day of January, 1960

  
Acting Director,  
United States Geological Survey

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NOV 27 1959: Tonto Deep Unit Agreement  
Lea County, New Mexico  
No. 14-3-31-0234

010261

APPLICATION FOR EXTENSION OF TIME  
WITHIN WHICH TO FURTHER COMPLY WITH THE  
DRILLING REQUIREMENTS OF THE UNIT AGREEMENT

To: Commissioner of Public Lands  
State Land Office  
Santa Fe, New Mexico

Director,  
United States Geological Survey,  
Washington, D. C.

RECEIVED  
DEC 3 1959  
U. S. GEOLOGICAL SURVEY  
ROSWELL, NEW MEXICO

Comes the undersigned, the Continental Oil Company, a Delaware corporation with offices at Fort Worth, Texas, the unit operator designated in the Unit Agreement for the Development and operation of the Tonto Deep Unit Area, Lea County, New Mexico, and hereby makes application for an extension of time of six months from December 2, 1959, within which to commence operations upon a second test well upon said unit area in accordance with Section 5 of the unit agreement and in support thereof respectfully shows:

1. That the above referred to unit agreement, dated September 15, 1958, was approved by the Commissioner of Public Lands of the State of New Mexico and by the Director of the United States Geological Survey and became effective on December 1, 1958.

That on or about September 10, 1958, the Continental Oil Company, as unit operator, commenced operations upon the initial test well in accordance with Section 5 of the unit agreement, said well being located 330' SW1 and 1630' SW2 of section 22, Township 10 South, Range 34 East, N.M.P.M., Lea County, New Mexico, and that said well was drilled to a depth of 14,925' and was plugged back to a depth of 11,000' where an attempt has been made over a period of several months to complete the well in the Middle Wolfcamp formation.

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The following is a resume of the tests which have been made in connection with said well:

Drill-stem test in Devonian formation from 14,342'-14,325': Tool open 2 hrs and 15 mins. Recovered 2830' of salty sulphur water. Plugged back to 11,000 feet.

Zones in the upper Wolfcamp from 10,831'-10,809'; 10,769'-10,751'; 10,791'-10,811' were perforated and tested. Tests showed water production and indicated communication behind casing. The intervals were squeeze-cemented and individual tests were then conducted to evaluate the separate zones.

The zones from 10,769' to 10,781' and 10,791' to 10,811' were re-perforated and acidized with mud acid. Individual snabbling tests showed the production of high percentage of salt water. These zones were re-squeezed with cement.

The interval from 10,831 to 10,809' was re-perforated. After extensive work in the zone which included re-squeezing with cement to eliminate water production, the well snabbed 4 bbls oil per hour with 40 per cent BS&W. While performing production tests, the fluid level in the well was observed to drop very rapidly which indicated the zones inability to maintain commercial flow. The interval was squeezed and the well was completed in the interval from 11,394' to 11,423'.

As of October 1, 1959, the well had produced a total of 1,444 barrels of crude oil from the interval of 11,394' to 11,423' and the well is currently producing at the rate of 1.38 barrels of oil and no water per day by scribe pump with a gas-oil ratio of 4615/1. Due to the work-overs performed and the tests made the well was not considered as completed until on or about the 2nd day of June, 1959, and under Section 9 of the unit agreement the time for the commencement of the next well is considered to be as of December 2, 1959.

2. Due to the character of the production obtained from said well, applicant has not considered the same as a well capable of producing unitized substances in paying quantities and for that reason has not submitted for approval a plan of development and

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2/0261

operation for the unitized land or make application for the designation of a participating area.

That applicant believes that the Wolfcamp zone encountered in said well is capable of producing oil or gas in paying quantities but that it would be advisable and to the best interest of all concerned to drill a new well rather than to try to rework the existing well. That applicant has been having some difficulties in connection with making arrangements for the commencement of a new well upon the unit area due to the shortage of casing or pipe caused on account of the steel strike and also due to the death of Sid W. Richardson, one of the owners of a substantial portion of the leasehold interests within the unit area. However, it is believed that all arrangements can be made for the commencement of an additional test well upon the unit area on or before the 2nd day of June, 1900.

Respectfully submitted,

CONTINENTAL OIL COMPANY

By W. A. Mudd  
Division Superintendent of Production  
New Mexico Division of  
Southwestern Region

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Case 1514

TO THE OFFICE OF

BEFORE THE OIL CONSERVATION COMMISSION  
STATE OF NEW MEXICO: 17

APPLICATION FOR APPROVAL OF  
TONTO DEEP UNIT AGREEMENT, LEA COUNTY, NEW MEXICO

New Mexico Oil Conservation Commission  
Santa Fe, New Mexico

Comes the undersigned, Continental Oil Company, of Fort Worth, Texas, and files herewith three copies of the proposed unit agreement for the development and operation of the Tonto Deep Unit Area, Lea County, New Mexico, and hereby makes application for the approval of said unit agreement as provided by law, and in support thereof, states:

1. That the proposed unit area covered by said agreement embraces 2,000 acres, more or less, more particularly described as follows:

NEW MEXICO PRINCIPAL MERIDIAN

Township 18 South, Range 34 East

- Section 21: NE $\frac{1}{4}$
- Section 22: All
- Section 23: W $\frac{1}{2}$ NW $\frac{1}{4}$ , SW $\frac{1}{4}$
- Section 27: All
- Section 28: NE $\frac{1}{4}$

2. That of the lands embraced within the proposed unit area, 320 acres are Federal lands and 1680 acres are lands of the State of New Mexico. That said area has been designated by the United States Geological Survey on August 22, 1958, as an area suitable and proper for unitization.

3. That applicant submits herewith geological report which applicant requests be treated as confidential and showing the geological features involved in the unit area, and which is a copy of the same report which was submitted to the United States Geological Survey with the application for designation of the unit area.

4. That Continental Oil Company is designated as the unit operator in said unit agreement, and as such is given authority under the terms hereof to carry on all operations necessary for the development and operation of the unit area for oil and gas, subject to all applicable laws and regulations. That said unit agreement provides for the drilling of a test well to a depth sufficient to test the Devonian formation but the unit operator is not required to drill said well in excess of 15,000 feet.

5. That said unit agreement is in substantially the same form as unit agreements heretofore approved by the Commissioner of Public Lands of the State of New Mexico and by the New Mexico Oil Conservation Commission, and it is believed that in the event oil or gas in paying quantities is discovered on the lands within the unit area, that the field or area can be developed more economically and efficiently under the terms of said agreement, to the end that the maximum recovery will be obtained, and that said unit agreement is in the interest of the conservation of oil and gas and the prevention of waste as contemplated by the New Mexico Oil Conservation Commission statutes.

6. That application is being made for the approval of said unit agreement by the Commissioner of Public Lands for the State of New Mexico.

7. That upon an order being entered by the New Mexico Oil Conservation Commission approving said unit agreement and after approval thereof by the Commissioner of Public Lands of the State of New Mexico and the Director of the United States Geological Survey, an approved copy thereof will be filed with the New Mexico Oil Conservation Commission.

WHEREFORE, the undersigned applicant respectfully requests that a public hearing be held on the matter of the approval of said unit agreement and that upon said hearing, said unit agreement be approved by the New Mexico Oil Conservation Commission as being in the interest of conservation and prevention of waste.

DATED this the 1st day of September 1958.

Respectfully submitted,

CONTINENTAL OIL COMPANY

By Howard C. Sullivan

**GIL CONSERVATION COMMISSION**

P. O. BOX 871

**SANTA FE, NEW MEXICO**

October 20, 1958

C  
O  
P  
Y

Mr. Clarence Hinkle  
Hervey, Dow & Hinkle  
P.O. Box 547  
Roswell, New Mexico

Dear Mr. Hinkle:

As per my letter of October 17th, enclosed are fully executed copies of Orders R-1257 covering the Tonto Deep Unit Agreement and R-1259 covering the Bandana Point Unit Agreement.

Very truly yours,

A. L. Porter, Jr.  
Secretary - Director

bp  
Encls.

Case 1514

*Open hearing*

J. M. HERVEY 1874-1953

LAW OFFICES  
HERVEY, DOW & HINKLE  
HINKLE BUILDING  
ROSWELL, NEW MEXICO

August 26, 1958

TELEPHONE MAIN 2-6510  
POST OFFICE BOX 547

HIRAM M. DOW  
CLARENCE E. HINKLE  
W. E. BONDURANT, JR.  
GEORGE H. HINKER, JR.  
HOWARD C. BRATTON  
S. B. CHRISTY IV  
LEWIS C. COX, JR.

PAUL W. EATON, JR.  
ROBERT C. BLEDSOE

New Mexico Oil Conservation Commission  
Santa Fe, New Mexico

Re: Tonto Deep Unit Area  
Lea County, New Mexico

Gentlemen:

Enclosed herewith please find, in triplicate, Application for Approval of the Tonto Deep Unit Agreement containing lands in Lea County, New Mexico.

I have discussed this Application with Mr. Cooley and have explained to him that it is imperative that the unit well be commenced at an early date and accordingly it would be appreciated if you would set the matter down for the first available hearing, either before the Commission or before an Examiner.

Very truly yours,

HERVEY, DOW & HINKLE

By 

HCB:lm  
Enclosure

cc: Continental Oil Company

*Docket Mailed  
9-19-58  
BP*

J. M. HERVEY 1874-1953  
HIRAM M. DOW  
CLARENCE E. HINKLE  
W. E. BONDURANT, JR.  
GEORGE H. HUNKER, JR.  
HOWARD C. BRATTON  
S. B. CHRISTY  
LEWIS C. COX, JR.

PAUL W. EATON, JR.  
ROBERT C. BLEDSOE

LAW OFFICES  
HERVEY, DOW & HINKLE  
HINKLE BUILDING  
ROSBELL, NEW MEXICO

TELEPHONE MAIN 2-6510  
POST OFFICE BOX 547

October 13, 1958

Mr. A. L. Porter, Jr., Secretary - Director  
New Mexico Oil Conservation Commission  
Mabry Hall, State Capitol  
Santa Fe, New Mexico

Re: Tonto Deep Unit Agreement  
Case No. 1514

Dear Mr. Porter:

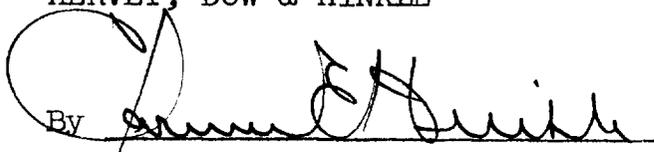
The hearing on the above unit was held on October 2 before Elvis A. Utz.

The obligation well under the unit is being drilled and inasmuch as this unit has to go to Washington for approval by the U.S.G.S. we are extremely anxious that the order of the Commission approving the unit be entered as soon as possible so that the agreement can be approved by the Commissioner of Public Lands and filed with the U.S.G.S.

Anything you can do to expedite approval will be greatly appreciated. Also, please advise Mrs. Marian Rhea, head of the unitization division in the Land Office just as soon as the order has been signed.

Yours sincerely,

HERVEY, DOW & HINKLE

By 

CEH/bp

File  
1514

MAIL OFFICE REC  
OCT 20 1958

In reply refer to:  
Unit Division

October 17, 1958

C

Mr. Clarence S. Hinkle  
Hervey, Dow and Hinkle  
P. O. Box 547  
Roswell, New Mexico

O

Re: Continentals Tonto  
Deep Unit Area  
Lea County, New Mexico

Dear Mr. Hinkle:

P

We are enclosing eight certificates of approval for the Tonto Deep Unit Agreement, which was approved by the Commissioner of Public Lands October 17, 1958, subject to like approval by the United States Geological Survey.

Y

This office is to receive one copy of the Unit Agreement and two copies of the Unit Operating Agreement when final approval is obtained.

I wish to call your attention to Exhibit "D". The first page of this Exhibit, sets forth the Federal Acreage under Tract No. 1 and is headed by eight columns, no. 6 being "Lessee of Record". Please note that pages two and three, which covers State Land, does not carry column no. 6 "Lessee of Record". May we please have a revised copy of Exhibit "D".

Also enclosed is official receipt No. E-48333 in the amount of \$25.00 covering the filing fee for the Tonto Deep Unit Agreement.

Very truly yours,  
HULLAY E. MORGAN  
Commissioner of Public Lands

BY:  
Ted Bilberry, Supervisor  
Oil and Gas Division

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Oil Conservation Commission 9 a.m. Mabry Hall, State Capitol, Santa Fe

The following cases will be heard before Elvis A. Utz, Examiner:

CASE 1225: Application of Moab Drilling Company for authority to expand its water flood project in the High Lonesome Pool, Eddy County, New Mexico, and for approval of certain unorthodox well locations therein. Applicant, in the above-styled cause, seeks an order authorizing the expansion of its water flood project in the High Lonesome Pool, Eddy County, New Mexico, to include its Davis-Federal Well No. 11-W, a proposed water injection well to be drilled on an unorthodox location 1310 feet from the North line and 2630 feet from the West line of Section 15, Township 16 South, Range 29 East. Applicant further seeks an administrative procedure for the future expansion of said water flood project to include the following proposed water injection wells to be drilled on unorthodox locations:

Davis-Federal No. 1-W; 10 feet from the North line and 2630 feet from the West line of Section 15.

Davis-Federal No. 2-W; 10 feet from the North line and 1310 feet from the West line of Section 15.

Skelly-State No. 15-W; 1310 feet from the North line and 2630 feet from the West line of Section 16.

Skelly-State No. 25-W; 2630 feet from the North line and 2630 feet from the West line of Section 16.

All in Township 16 South, Range 29 East.

CASE 1511: Application of Newmont Oil Corporation for an order authorizing a pilot water flood project. Applicant, in the above-styled cause, seeks an order authorizing it to institute a pilot water flood project in the Loco Hills Pool in Eddy County, New Mexico. Applicant proposes to inject water into the Grayburg formation through one well in Section 1, Township 18 South, Range 29 East, and through five wells in Section 6, Township 18 South, Range 30 East, all in Eddy County, New Mexico.

CASE 1512: Application of Humble Oil & Refining Company for approval of a unit agreement. Applicant, in the above-styled cause, seeks an order approving its Bandana Point Unit Agreement embracing approximately 14,293 acres of Federal, state and fee acreage in Township 22 South, Range 23 East, and Township 23 South, Ranges 23 East and 24 East, all in Eddy County, New Mexico.

CASE 1513: Application of Drilling and Exploration Company, Inc. for an exception to the casing requirements for the potash-oil area in Lea and Eddy Counties, New Mexico. Applicant, in the above-styled cause, seeks an order authorizing an exception to the shallow-zone casing requirements for the potash-oil

CASE 1513 continued

area as set forth in Order No. R-111-A for its Ballard No. 1 Well located 1980 feet from the North and West lines of Section 27, Township 20 South, Range 34 East, Lea County, New Mexico. Applicant proposes to drill with cable tools to an approximate depth of 3,700 feet adjacent to the Lynch Pool. Applicant proposes to use the following casing program in lieu of the program prescribed for cable tool holes by Order R-111-A:

- (1) 13 3/8 inch casing to be cemented at approximately 70 feet.
- (2) 10 3/4 inch casing to be landed at approximately 700 feet.
- (3) 8 5/8 inch casing to be landed at approximately 1250 feet.
- (4) 5 1/2 inch casing to be cemented at the top of the producing formation with 50 sacks cement for testing purposes.
- (5) 10 3/4 inch casing and 8 5/8 inch casing to be pulled.
- (6) In the event commercial production is obtained, 5 1/2 inch casing to be perforated and cement circulated to surface.

CASE 1514:

Application of Continental Oil Company for approval of a unit agreement. Applicant, in the above-styled cause, seeks an order approving its Tonto Deep Unit Agreement embracing 2,000 acres, more or less, of Federal and state lands in Township 18 South, Range 34 East, Lea County, New Mexico.

CASE 1515:

Application of Continental Oil Company for a non-standard gas proration unit. Applicant, in the above-styled cause, seeks an order establishing a 320-acre non-standard gas proration unit in the Jalmat Gas Pool consisting of the S/2 Section 22, Township 22 South, Range 36 East, Lea County, New Mexico, said unit to be dedicated to the applicant's Meyer B-22 Well No. 1 located 1650 feet from the South line and 990 feet from the East line of said Section 22.

CASE 1516:

Application of El Paso Natural Gas Company for two non-standard gas proration units and for the approval of one unorthodox gas well location. Applicant, in the above-styled cause, seeks an order establishing a 120-acre non-standard gas proration unit in the Jalmat Gas Pool consisting of the N/2 SW/4 and the SW/4 SW/4 of Section 4, Township 25 South, Range 37 East, said unit to be dedicated to the applicant's Wells Federal No. 3 Well located 1980 feet from the South and West lines of said Section 4. Applicant further seeks the establishment of a 200-acre non-standard gas proration unit in the Jalmat Gas Pool consisting of the SE/4