CASE 3780: Application of AMERADA PETROLEUM CORPORATION FOR AMERICANT TO ORDER NO. R-3407.

Case Number

Application Transcripts.

Small Exhibits

F/C

## OIL CONSERVATION COMMISSION F. O. BOX 2088 SANTA FE, NEW MEXICO 87501

June 21, 1968

Mr. Jason Kellahin Mellahin & Pox Attorneys at Law Post Office Box 1769 Santa Pe, New Mexico

Dear Sir:

Reference is made to Commission Order No. R-3407-A, recently entered in Case No. 3780, amending Order No. R-3407, which authorized expansion of the Amerada Langile Eattix Unit Water-flood Project.

Injection into the well covered by this order is to be through two-inch plastic-coated tubing set in a packer at 3178. The 4½ inch easing in this well is set at 3595 and comented to 2300 feet. In addition, coment was circulated to the surface through the DV tool set at 1100 feet. The casing-tubing annulus shall be filled with an inert fluid and equipped with a pressure gauge to facilitate detection of tubing and casing leaks.

As to allowable, our letter of April 30, 1968, is still applicable.

Very truly yours,

A. L. PORTER, Jr. Secretary-Director

ALP/DEM/ix cs: Oil Conservation Coumission Hobbs, New Mexico

> Mr. D. E. Gray State Engineer Office Santa Po, New Mexico

## BEFORE THE OIL COMSERVATION 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 COMSIDERING:

> CASE No. 3780 Order No. R-3407-A

APPLICATION OF AMERADA PETROLEUM CORPORATION FOR AN AMENDMENT TO ORDER NO. R-3407, LEA COUNTY, NEW MEXICO.

#### ORDER OF THE CONNISSION

#### BY THE CONMISSION:

This cause came on for hearing at 9 a.m. on June 5, 1968, at Santa Fe, New Mexico, before Examiner Daniel S. Eutter.

NOW, on this 18th day of June, 1968, the Commission, a quorum being present, 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 Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That by Order No. R-3407, the applicant, Amerada Petroleum Corporation, was authorised to expand its Langlie Mattix Woolworth Unit Waterflood Project in the Langlie-Mattix Pool by the injection of water into the Seven Rivers-Queen formation through an injection well to be drilled at an unorthodox location 75 feet from the North line and 2635 feet from the West line of Section 27, Township 24 South, Range 37 East, NMPM, Lea County, New Mexico.
- (3) That the applicant now seeks the amendment to Order No. R-3407 to permit the drilling of the water injection well at a point 75 feet from the North line and 2540 feet from the West line of said Section 27.

-2-CASE No. 3780 Order No. R-3407-A

- (4) That the previously authorized location of said well at a point 75 feet from the North line and 2635 feet from the West line of said Section 27 would fall on a graded county road.
- (5) That approval of the subject application will not violate correlative rights and will permit an efficient water injection pattern to be maintained, thereby preventing waste.

#### IT IS THEREFORE ORDERED:

- (1) That Order (1) of Order No. R-3407 is hereby amended to read in its entirety as follows:
  - "(1) That the applicant, Amerada Petroleum Corporation, is hereby authorized to expand its Langlie Mattix Woolworth Unit Waterflood Project in the Langlie-Mattix Pool by the injection of water into the Seven Rivers-Queen formation through an injection well to be drilled at an unorthodox location 75 feet from the Worth line and 2540 feet from the West line of Section 27, Township 24 South, Range 37 Mast, MMPM, Lea County, New Mexico."
- (2) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DOME at Santa Pe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO OIL COMPREVATION COMMISSION

DAVID F. CARGO, Chairman

GUYTON B. BAYS, Member

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A. L. FORTER, Jr., Member & Secretary

GOVERNOR DAVID F. CARGO CHAIRMAN

## State of New Mexico Gil Conservation Commission

LAND COMMISSIONER GUYTON B. HAYS MEMBER



STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

P, O, BOX 2088

June 18, 1968

Mr. Jason Kellahin Kellahin & Fox Attorneys at Law Post Office Box 1769 Santa Fe, New Mexico Re: Case No. 3780
Order No. R-3407-A

Applicant:

Amerada Petroleum Corporation

Dear Sir:

Enclosed herewith is a copy of the above-referenced Commission order recently entered in the subject case. Letter pertaining to conditions of approval and maximum allowable to follow.

Very truly yours,

A. L. PORTER, Jr. Secretary-Director

ALP/ir

Carbon copy of order also sent to:

Hobbs OCC X
Artesia OCC Aztec OCC State Engineer X

Other

## 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. 3753 Order No. R-3407

APPLICATION OF AMERADA PETROLEUM CORPORATION FOR A WATERFLOOD EXPAN-SION, LEA COUNTY, MEN MEXICO.

#### ORDER OF THE COMMISSION

#### BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on April 24, 1968, at Santa Fe, New Mexico, before Examiner Daniel S. Mutter.

MOW, on this \_\_\_\_\_day of April, 1968, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

#### PINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Amerada Petroleum Corporation, seeks permission to expand its Langlie Mattix Woolworth Unit Waterflood Project in the Langlie-Mattix Pool by the injection of water into the Seven Rivers-Queen formation through an injection well to be drilled at an unorthodox location 75 feet from the West line of Section 27, Township 24 South, Range 37 Rast, HMPM, Lea County, New Maxico.
- (3) That the wells in the project area are in an advanced state of depletion and should properly be classified as "stripper" wells.
- (4) That the proposed expansion of the waterflood project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

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-2-CASE No. 3753 Order No. R-3407

(5) That the subject application should be approved and the expanded project should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

#### IT IS THEREFORE CODERED:

- (1) That the applicant, Amerada Petroleum Corporation, is hereby authorised to expand its Langlie Mattix Woolworth Unit Waterflood Project in the Langlie-Mattix Pool by the injection of water into the Seven Rivers-Queen formation through an injection well to be drilled at an unorthodox location 75 feet from the West line of Section 27, Township 24 South, Range 37 East, NMPM, Lea County, New Mexico.
- (2) That the expanded waterflood project shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.
- (3) That monthly progress reports of the expanded waterflood project herein authorised shall be submitted to the Commission in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.
- (4) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DOME at Santa Fe, Hew Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO OIL COMSERVATION COMMISSION

DAVID F. CARGO, Chairman

GUYTON B. HAYS, Member

SEAL

A. L. PORTER, Jr., Member & Secretary

esz/

#### DOCKET: EXAMINER HEARING - WEDNESDAY - JUNE 5, 1968

9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM, STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases will be heard before Elvis A. Utz, Examiner, or Daniel S. Nutter, Alternate Examiner:

- CASE 3777: Application of Atlantic Richfield Company for salt water disposal, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Bough "C" zone of the Pennsylvanian formation in its State AE Well No. 2 located in Unit L of Section 36, Township 8 South, Range 36 East, Allison-Pennsylvanian Pool, Roosevelt County, New Mexico, in the perforated interval from 9662 feet to 9672 feet.
- CASE 3778: Application of Atlantic Richfield Company for a dual completion and salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its State BH Well No. 1 located 660 feet from the North and West lines of Section 13, Township 19 South, Range 34 East, Quail-Queen Pool, Lea County, New Mexico, in such a manner as to permit production of oil from 5080 feet to 5136 feet in the lower Queen formation through tubing and the disposal of produced salt water into the upper Queen formation through the casing-tubing annulus in the perforated interval from 4820 feet to 4830 feet.
- CASE 3779: Application of Shenandoah Oil Corporation for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Yates, Seven Rivers, Queen, and Grayburg formations through five wells located in units F and N of Section 29, and units A, G, and T of Section 30, all in Township 18 South, Range 31 East, Shugart Pool, Eddy County, New Mexico.
- CASE 3780: Application of Amerada Petroleum Corporation for an amendment to Order No. R-3407, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-3407, which authorized the drilling of a water injection well in its Langlie-Mattix Woolworth unit waterflood project at an unorth-odox location 75 feet from the North line and 2635 feet from the West line of Section 27, Township 24 South, Range 37 East, Lea County, New Mexico. Applicant now proposes to locate said well 75 feet from the North line and 2540 feet from the West line of said Section 27.

Page -2-Docket No. 17-68 June 5, 1968 Examiner Hearing

- CASE 3781: Application of Sinclair Oil & Gas Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water by injection into the Permo-Pennsylvanian formation in the interval 10,434 feet to 11,537 feet in the Cities Service State "AW" Well No. 4 located in Unit I of Section 35, Township 15 South, Range 36 East, Dean Field, Lea County, New Mexico.
- CASE 3782: Application of Pan American Petroleum Corporation for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a water-flood project by the injection of water into the Seven Rivers and Queen formations underlying its Cortland Myers unit area through three wells located in units F, J, and P of Section 22, Township 24 South, Range 37 East, Langlie-Mattix Pool, Lea County, New Mexico.
- CASE 3783: Application of Pan American Petroleum Corporation for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Cortland Myers Unit Area comprising 240 acres, more or less, of Federal lands in Section 22, Township 24 South, Range 37 East, Langlie-Mattix Pool, Lea County, New Mexico.
- CASE 3784: Application of Pan American Petroleum Corporation for a unit agreement, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval of the North King Camp Unit Area comprising 14,697 acres, more or less, of State, Federal, and fee lands in Township 13 South, Ranges 29 and 30 East, Chaves County, New Mexico.
- CASE 3785: Application of Pan American Petroleum Corporation for an unorthodox gas well location, Chaves County, New Mexico.

  Applicant, in the above-styled cause, seeks authority to drill its Poitevent Gas "Com" Well No. 1 at an unorthodox gas well location 990 feet from the North line and 1650 feet from the East line of Section 11, Township 15 South, Range 27 East, Buffalo Valley-Pennsylvanian Gas Pool, Chaves County, New Mexico, in exception to the pool rules which require wells in said pool to be located in the NW/4 or SE/4 of the section.

Page -3-Docket No. 17-68 June 5, 1968 Examiner Hearing

CASE 3786: Application of Texaco Inc. for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the North Paduca-Delaware Pool, Lea County, New Mexico, including a provision for classification of oil and gas wells in said pool, a limiting gas-oil ratio of 3000 to one, and 40-acre spacing for oil wells and 160-acre spacing for gas wells. Locations would be no nearer than 330 feet to a quarter-quarter section line.

CASE 3776: (Continued from the May 22, 1968 Examiner Hearing)

Application of J. M. Huber Corporation for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Union-State Unit Area comprising 1360 acres, more or less, of State lands in Township 15 South, Range 32 East, Lea County, New Mexico.

well File Care 300 on

Returned home.

#### NEW MEXICO OIL CONSERVATION COMMISSION

#### FIELD TRIP REPORT

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Time of Departure	3:00 P.M. (14th)	Time of Return_	2:00 A.M. (15th)	<b></b>
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nlug @ 12:20. nlug	to D.V. Tool @ 12:31.	. Verv good excess a	and cement return.	

DATE\_

5/14-15/68

AMERADA PETROLEUM GORPORATION HAY 15 AH 8 38

P. O. BOX 2040

LEGAL DEPARTMENT

#### TULSA, OKLAHOMA 74102

May 13, 1968

Case 3780

New Mexico Oil Conservation Commission P. O. Box 2088 Santa Fe, New Mexico 87501

Attention: Mr. A. L. Porter, Jr. State Geologist

Re: Application for hearing

#### Gentlemen:

Enclosed in triplicate is Amerada's application for approval of a substitute location for an injection well for our Langlie Mattix Woolworth Unit. Please set this matter for hearing at the earliest date possible. Thank you.

Yours very truly,

TWL:ac Enclosure

cc: State Engineer w/encl. State Capitol Building Santa Fe, New Mexico

> Mr. Jason Kellahin w/encl. P. O. Box 1769 Santa Fe, New Mexico 87501

> > DOCKET MULLED

### BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION

APPLICATION OF AMERADA PETROLEUM )
CORPORATION FOR APPROVAL OF THE )
UNORTHODOX LOCATION OF A SUBSTITUTE)
INJECTION WELL FOR ITS LANGLIE )
MATTIX WOOLWORTH UNIT IN THE )
LANGLIE-MATTIX POOL, LEA COUNTY, )
NEW MEXICO.

CASE NO. 3780

#### APPLICATION

Applicant Amerada Petroleum Corporation states that:

- 1. By Order No. R=3407, dated April 29, 1968, this Commission approved expansion of the Langlie Mattix Woolworth Unit waterflood project in the Langlie-Mattix Pool by the injection of water into the Seven Rivers-Queen formation through an injection well at an unorthodox location 75 feet from the North line and 2635 feet from the West line of Section 27, Township 24 South, Range 37 East, NMPM, Lea County, New Mexico.
- 2. At the request of the surface owner, based on possible interference by the subject well with surface facilities at the approved location, Applicant hereby seeks approval of the following location in lieu of the location approved by Order No. R-3407:

75 feet from the North line and 2540 feet from the West line of Section 27-24S-37E, Lea County, New Mexico.

- 3. The injection operations will, except for the location of the well, be the same as approved by Order No. R-3407. A plat showing the proposed location and all other wells and lessees within a 2-mile radius is attached as Exhibit A. A diagrammatic sketch showing the proposed completion is attached as Exhibit B.
- 4. A copy of this application with all attachments has been mailed to the State Engineer Office, Capitol Building, Santa Fe.

Applicant therefore requests that this matter be set for hearing, that notice thereof be given as required by law, and that upon conclusion of such hearing an order be entered granting this application.

AMERADA PETROLEUM CORPORATION

V \_ Choma

Thomas W. Lynch, Autorney

P. 0. Box 2040

Tulsa, Oklahoma 74102

R 37E SHELL'S LANGUE MATTIX UNIT NO.1 T 24 T 25 S LANGLIE MATTIX FIELD

WOOLWORTH UNIT

LEA CO, NEW MEXICO

SCALE

EXHIBIT A

Case 3780

# AMERADA PETROLEUM CORPORATION

LANGLIE MATTIX WOOLWORTH UNIT

7-5/8" at 250' 2-3/8" TUBING TENSION PACKER EST. TOP OF QUEEN 3315 5-1/2" at 3490'

TD 3490

Case 3780 EXHIBIT B

dearnley-meier reporting service, inc.

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
June 5, 1968

EXAMINER HEARING

IN THE MATTER OF:

Application of Amerada Petroleum Corporation for an amendment to Order No. R-3407, Lea County, New Mexico.

Case No. 3780

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING



MR. NUTTER: We will call next Case 3780.

MR. HATCH: Application of Amerada Petroleum Corporation for an amendment to Order No. R-3407, Lea County, New Mexico.

MR. KELLAHIN: If the Examiner please, Jason Kellahin, Kellahin and Fox, Santa Fe, appearing for the applicant. I have one witness I would like to have sworn, please.

(Witness sworn.)

(Whereupon, Exhibits 1 & 2 were marked for identification.)

MR. NUTTER: We might ask at this point if there are any appearances in Case 3780. Would you proceed, Mr. Kellahin?

#### JOHN SWENDIG

called as a witness, having been first duly sworn, was examined and testified as follows:

#### DIRECT EXAMINATION

#### BY MR. KELLAHIN:

- Q Would you state your name, please?
- A John Swendig.
- Q By whom are you employed?
- A Amerada Petroleum Corporation.

- Q What is your position with Amerada?
- A District Engineer, Hobbs, New Mexico.
- Q Have you testified before the Oil Conservation Commission and made your qualifications a matter of record?
  - A Yes, I have.

MR. KELLAHIN: Are the witness's qualifications acceptable?

MR. NUTTER: Yes, they are.

- Q (By Mr. Kellahin) Are you familiar with the application of Amerada Petroleum Corporation in Case 3780?
  - A Yes, sir.
  - Q What does Amerada propose in this application?
- A To revise or relocate a non-standard well that was approved in Order R-3407.
- Q Was that well approved in connection with the approval of a waterflood project?
- A Yes, sir, this was to be drilled as an injection well.
- Q Has the well now been drilled at the location for which you presently seek approval?
  - A Yes, sir, it has been drilled.
- Q What is the reason for the change in location, Mr. Swendig?

- A To keep from interfering with a graded county road.
- Q Would the location, as approved in Order Number 3407, have located the well in the county road?
- A Yes, sir. It would have been staked in the middle of the road.
- Q Now, referring to what has been marked as Exhibit No. 1, would you identify that exhibit, please?
- A This is a plat showing the Langlie-Mattix Woolworth Unit and the adjacent area around it, showing Well 5-5 located in Section 27, 24 South, 37 East, and it's marked with an orange arrow.
- Q Is there a waterflood project offsetting that well to the north?
- A Yes, sir, there's an active flood to the northwest, George Buckle's Knight lease.
- Q Is there an application on the docket today for the flood to the north?
  - A Yes, sir.
- Q Have you entered into a line agreement with Pan

  American in connection with the location of the subject well?
- A Yes, sir. The agreement was entered in Case 3407 as an exhibit.
  - Q Now, referring to what has been marked as Exhibit

No. 2, would you identify that exhibit, please?

A This is a revised schematic of the injection well in the original hearing, the schematic was a proposed schematic and there have been several changes since then. The original T.D. was estimated to be 3500 feet and the well was actually drilled to 3600 feet. On the original we had shown 5-1/2-inch casing and we, in fact, run 4-1/2-inch casing.

Q Is this a conventional type of completion for water injection?

A Yes, sir. It is completed through casing perforation, there will be a packer, tubing packer run, the annulus will be isolated and filled with an inert fluid and equipped with a pressure gauge to the surface.

Ω Insofar as the completion and injection through tubing under a packer is concerned, that is what was proposed in the original case, was it not?

Ā Yes.

Q And was approved by the Commission. But the difference is in the size of the casing and the total depth of the well, is that the only difference?

A Yes, sir, that would be the only difference, and since we have perforated, we show the exact perforated interval

and some of the exact pay tops or zone tops.

Q Now, as to the surface string of casing, that was cemented and circulated, was it not?

A Yes, sir. 7-5/8ths-inch casing, 262 feet with cement circulated.

Q It also shows the casing cemented into the surface string?

A Yes, sir. There's a "DV" tool run at 1100 feet and cement circulated back to the surface. This ties all fresh water zones above the salt section sealed off behind the cement.

Q All of the well is cemented with the exception of the salt zone?

A Yes.

Q Were Exhibits 1 and 2 prepared by you or under your supervision?

A Yes, sir.

Q Do you have anything further to add?

A No.

MR. KELLAWIN: At this time we offer Exhibits 1 and 2.

MR. NUTTER: Exhibits 1 and 2 will be admitted in evidence.

(Whereupon, Exhibits 1 and 2 were offered and admitted in evidence.)

#### CROSS EXAMINATION

#### BY MR. NUTTER:

Q Mr. Swendig, the location, as approved by Order R-3407, was subject to the line agreement you had with Pan American and which was entered into the original record of the former case. Is Pan American agreeable to the moving of this location?

A The original agreement with Pan American stated that an injection well would be drilled in Unit C, Section 27.

Q So this location is still in conformance with the line agreement, then?

A Yes, it is still in conformance with the line agreement.

Q Now, by putting this "DV" tool in it at 1100 and circulating cement, you have circulated from down in the salt back across the Rustler and across all of these water-producing sands that lay below the casing point on your surface pipe, that is at 262, there are some fresh water sands down through that interval?

A Yes, the Santa Rosa, which does produce reasonably fresh water.

Q It is cemented off at this time?

A Yes, sir.

MR. NUTTER: Are there any other questions of Mr. Swendig? He may be excused.

(Witness excused.)

MR. NUTTER: Do you have anything further, Mr. Kellahin?

MR. KELLAHIN: That's all I have.

MR. NUTTER: Does anyone have anything further they wish to offer in Case 3780? We will take the case under advisement.

## INDEX

WITNESS	PAGE
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EXHIBIT MARKED  Exhibits 1 & 2 2	OFFERED AND ADMITTED

STATE OF NEW MEXICO )
) s:
COUNTY OF BERNALILLO)

I, ADA DEARNLEY, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me; and that the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

Witness my Hand and Seal this 8th day of July, 1968.

NOTARY PURLIC

My Commission Expires:

June 19, 1971.

is do hereby centify that the foregoing is a complete record of the proceedings in the Executer hearing of Case to 1966.

**A** 151.91 :e

er Nexice Oil Conservation Commission

## AMERADA PETROLEUM CORPORATION

LANGLIE MATTIX WOOLWORTH UNIT

