Application

Transcripts.

Small Exhibits

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1120 SIMMS BLDG. . P. O. BOX 1092 . PHONE 243-6691 . ALBUQUERQUE, NEW MEXICO

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
September 10, 1969

EXAMINER HEARING

IN THE MATTER OF:

Application of Amerada Hess Corporation for approval of an unorthodox injection well location and the amendment of Order R-2197, Lea County, New Mexico

Case No. 4214

BEFORE: Daniel Nutter, Examiner.

TRANSCRIPT OF HEARING



MR. NUTTER: The hearing will come to order, please. The next case will be 4214.

MR. HATCH: Case 4214. Application of Amerada Hess Corporation for approval of an unorthodox injection well location and the amendment of Order No. R-2197, 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.

(Witness sworn.)

(Whereupon, Applicant's Exhibits 1 through 6 were marked for identification.)

# C. W. DEER

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

# DIRECT EXAMINATION

## BY MR. KELLAHIN:

- Q Will you state your name, please?
- A C. W. Deer.
- Q By whom are you employed and in what position, Mr. Deer?
- A I am employed with Amerada Hess Corporation as district production engineer in Hobbs, New Mexico.

- Q Mr. Deer, have you ever testified before the Oil Conservation Commission?
  - A No, I haven't.
- Q For the benefit of the Examiner, would you briefly outline your education and experience as a petroleum engineer?
- A Well, I graduated from the University of Texas in 1957, with a Bachelor of Science Degree in Mechanical Engineering. Since that time, I have been employed by Amerada as a petroleum engineer in Oklahoma, New Mexico, California and North Dakota.
- Q You are presently assigned to Hobbs, New Mexico, is that correct?
  - A Yes.
- Q In connection with your work at Hobbs, New Mexico, does the area involved in the application before the Commission at this time come under your supervision?
  - A It does.
- Q Have you made an investigation of the matters involved in this application?
  - A Yes, I have.
- MR. KELLAHIN: Are the witness' qualifications acceptable?

MR. NUTTER: Yes, they are.

- Q (By Mr. Kellahin) Mr. Deer, are you familiar with the application of Amerada Hess in Case No. 4214?
  - A Yes, I am.
- Q Briefly, what is proposed by Amerada Hess in this application?
- A We are asking for approval to drill a Langlie-Mattix Woolworth Unit Well No. 710 as a water injection well at an unorthodox location.
- Q Now referring to what has been marked as Amerada Exhibit No. 1, would you identify that exhibit, please?
- A Yes. This is a plat of the Langlie-Mattix
  Woolworth Unit which consist of Sections 27, 28, 33 and
  34. The current injection wells are shown with a triangle.

These are not colored and the proposed location well, 710, is shown colored red. This location is 1950 feet from the north line and 50 feet from the east line of Section 27, Township 24 South, Range 37 East, Lea County, New Mexico.

Q Now, in connection with the operation of this unit, does Amerada Hess have a line agreement with the operators to the north?

A Yes, they do. This is with Buckles and Pan-American.

Q Now referring to what has been marked as the Applicant's Exhibit No. 2, would you identify that exhibit, please?

A Yes. This is a performance curve of the Langlie-Mattix Woolworth Unit. The top curve is the monthly injection.

You can see on the curve we are currently injecting around 282,000 barrels per month. Our cumulative injection has been approximately 8,826,000 barrels of water.

Q Does the exhibit reflect that the waterflood project has received a response from the water injection?

A Yes, it does. As you can see on the curve the oil production has increased from around 5,000 barrels in 1965 up to around 47,000 barrels per month currently.

Q Now referring to what has been marked as Exhibit No. 3, would you identify that exhibit, please?

A Yes. This is a performance curve on the well 602. This is in Section 27 and it shows the response we have received from the initial pilot.

Production here, as you can see, has climbed

up to around 10,000 barrels of oil per month.

Q Now referring back to Exhibit 1, would you give the location of your well 602?

A Yes, sir. That is in the southwest quarter of Section 27. It's in what is shown as tract 6, well number 2. This was not the original pilot area.

Q This well is offset by injection wells, is that correct?

A Yes. It's offset by injection wells 601, 604, 307 and 124.

Q Now referring to what has been marked as Exhibit No. 4, would you identify that exhibit?

A Yes. This is a performance curve on our well 603, which is just -- well, which is to the northeast of the 602 and this shows the response we have received from this well since 1965.

As you can see here the response from this well is considerably below that of the  $60\overline{2}$ .

Q Now does this indicate a need for a back-up in your water injection program?

A Well, I feel like it does. On this particular curve here the injection wells 601 and 604 were offsetting

this particular well and as you can see we did get response in the first part of 1965 up to around a thousand barrels a month; and then sometime in 1968, wells 504 and 703 were converted to injection and we expect now to get a bigger response from this 603 since we backed it up.

- Q Now, would you anticipate that the wells offsetting your number ten well, which you propose to drill as an injection well, will have a like response?
  - A Yes, sir; we sure do.
- Q That is one of the reasons for your presently seeking approval of this injection well?
  - A Yes.
- Q Referring to what has been marked as Exhibit
  No. 5, would you discuss that exhibit?

A This is a schematic of the proposed injection well 710. As shown on the schematic we propose to set seven and five eighths inch casing at 760 feet, circulate cement and drill to approximately 3435 feet; and set four and a half inch casing and cement with 400 sacks, which we estimate will give us a top of the cement around 2200 feet.

We then plan to selectively perforate the Langlie-Mattix Zone from 3275 to 3415, then run a packer

and set it at 3225 feet with internally coated tubing at 3250.

- Q Is this substantially the same type of completion you have used in your own injection wells?
  - A It is.
- Q Have you had any difficulty with this type of injection well?
  - A No, sir; we sure haven't.
- Q Now referring back to our Exhibit No. 1, it would appear that the injection well is offset by Continental and by Sunset International, is that correct?
  - A Yes, it is.
- Q Referring to what has been marked as Exhibit
  No. 6, would you identify that exhibit?
- A Yes. This is a letter which we sent to Sunset

  International asking them to waive objections to the

  drilling and completion of this well 710 as a water injection

  well and they approved this as shown by their signature.
  - Q Did you contact Continental Oil Company?
- A We did and they have verbally approved the drilling of this well and they have no objections.
  - Q Are they also a participant in the Amerada

Hess Langlie-Mattix Woolworth Unit?

- A They are.
- Q Did they approve the A. F. E. on this well?
- A Yes, they did.
- Q Just to sum up your testimony, Mr. Deer, would you state why it is in your opinion necessary to drill the well at the location proposed?
- A I think it is necessary to prevent migration of oil off the -- from the unit boundary, gives back-up and increase recovery from the area.
- Q Will, in your opinion, the injection of water at the location proposed cause any impairment of the correlative rights of the offset operator?
  - A No, it will not.
- Q Were Exhibits 1 through 6 prepared by you or under your supervision?
  - A They were.

MR. KELLAHIN: At this time I would like to offer in evidence Exhibits 1 through 6, inclusive.

MR. NUTTER: Applicant's Exhibits 1 through 6 will be admitted in evidence.

Q (By Mr. Kellahin) Mr. Deer, in the application filed by Amerada Hess the Applicant requests that an

administrative procedure be established for approving additional water injection wells for the unit at unorthodox locations not closer than fifty feet from the unit boundary. What is the necessity for this administrative approval?

A Well, we feel that at the present time we really don't know how many other additional wells we will have at unorthodox locations and to eliminate some of the expense we feel that this should be done.

- Q Would you have any objection to such an administrative approval requiring notice to the offset operators?
  - A No, sir. I think this should be done.

MR. KELLAHIN: If the Examiner please, that completes the direct examination of the witness.

## CROSS EXAMINATION

# BY MR. NUTTER:

- Q Mr. Deer, evidently along the north side of this Woolworth Unit there is a line agreement because we have numerous injection wells located at unorthodox locations right on the corners of the various 40's?
  - A Yes, sir.
- Q Now, apparently, those are the only offsetting injection wells which are not at orthodox locations.

We have a Texaco Injection Well immediately east of your No. 127 in Section 34, but it's at a standard drilling location. Do you know whether any other line agreements exist with offsetting operators to this unit area?

A Well, at the present time I don't think there is. I think they are in the process of negotiating, especially down on the south and also on the western part of the boundary.

Q Now, as I recall, the Commission recently had a hearing for this acreage immediately south of Section 34 -- I believe this was Mobil's Humphrey Langlie-Mattix Unit -- and they have a waterflood project in there proposed.

I can't tell you whether the injection wells are orthodox or unorthodox and whether some sort of line agreement for orthodox location would be necessary or not, but is it your intent to ring this unit with injection wells at unorthodox locations located right near the boundary of the unit area?

A No, sir. I don't really think it is. I think a lot of these will be on orthodox locations; but at the present time we haven't entered into any agreement, especially on the west and the southern portion of the unit.

Q Now, would Amerada Hess have objection to a provision in the event the Commission should prove the administrative procedure for okaying injection wells at unorthodox locations such as this number ten here that you have proposed today; would you have an objection to the provision that not only these offsetting operators would be notified, but also a requirement for a waiver from these offsets?

In some cases it may be that ownership might not be correctly determined; you may send a notice to someone and they haven't actually gotten it and the first thing you would know you would have an injection well directly offsetting somebody's property you thought you had notified and you hadn't?

A We would go along with that.

MR. KELLAHIN: If the Examiner please, I would like to point out, however, that Continental Oil Company was contacted and a waiver requested for that from them. If I am correct, it is my understanding they take the position they will not grant waivers, but they had no objections; so, it would appear to me that to meet that requirement, we could establish that they did receive notice by certified mail or by some other means rather

than necessarily requiring a waiver.

MR. NUTTER: That doesn't assure that they own the property, however.

MR. KELLAHIN: This is true.

MR. NUTTER: You do have some leases down here that I know have changed hands on a number of occasions, these leases to the south. This is a waterflood area, and as you know in waterflood areas there's a lot of swapping around of property and interchanging.

MR. KELLAHIN: Yes.

MR. NUTTER: We know they have got notice when we have a hearing because the law says they have notice; but in the case of administrative procedures, there is always the possibility of relying on a mailed notice that may not be received by the proper party.

MR. KELLAHIN: Agreed.

() (By Mr. Nutter) Now, Mr. Deer, when this well 503 -- I presume is the name of it, maybe it's 505, that injection well in the extreme northeast quarter of the northwest quarter of Section 27 --

A Yes.

Ω -- was drilled, I believe that might be the well that we had to alter the casing program, it developed

that there were some fresh waters a little deeper than was originally anticipated.

A Yes, sir; I believe this is right. At that time they were setting surface piping around 250 or 60 feet or something like that, wasn't it?

Q Well, I understand we had to alter it and I think that the casing program that you have proposed here on Exhibit 5, being 760 feet of surface pipe, is adequate to protect that deep water sound that is known to exist in the area.

A Yes, sir, I believe it is. This is similar to the one --

Q And that is your intent, and you would be willing to accept surface pipe sufficient to protect that deep sand?

A Yes.

Q The same manner that was done on this 505 up here?

A Yes.

Q How about the anulus here? What is the proposal on the anulus, load it with some kind of inhibited fluid?

A Yes, sir.

- Q Can that be equipped with a fresh gauge then at the surface?
  - A Yes, sir.
- Q And this tubing is internally coated. Will that be cement-lined or plastic-lined or what?
  - A I presume this will be plastic-lined.
  - Q I see.

MR. NUTTER: Are there any further questions of Mr. Deer? He may be excused.

(Witness excused.)

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

MR. KELLAHIN: No. That's all the questions I have, Mr. Nutter.

MR. NUTTER: Does anyone have anything they wish to offer in Case 4214? We will take the case under advisement and call Case 4215.

# INDEX

WITNESS	PAGE
C. W. DEER	
Direct Examination by Mr. Kellahin	2
Cross Examination by Mr. Nutter	10

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Applicant's Exhibits 1 through 6

2

STATE OF NEW MEXICO )
) ss
COUNTY OF BERNALILLO )

I, GLENDA BURKS, Court Reporter 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.

Menda burks
Notary Public

My Commission Expires:

March 12, 1973

to hereby entiry that the foregoing is a complete record of the processions in the Eraminer hearing of Case No. 12. I hearing the Mexico Oil Conservation Commission

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#### ROUGH DRAFT FOR WATERFLOOD LETTERS

Mr. Jason Kellahin Kellahin & Fox Attorneys at Law Post Office Box 1769 Santa Fe, New Mexico Dear Sir:

4214 ,	approving		Order	No. R-2197-A	<u>.</u> , entered	l in Case	No.
Waterflood	Project.			1			
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		John J. K. E.					
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As to allowable, our calculations indicate that when all of the authorized injection wells have been placed on active injection, the maximum allowable which this project will be eligible to receive under the provisions of Rule 701-E-3 is \_\_\_\_\_\_ barrels per day when the Southeast New Mexico normal unit allowable is 42 barrels per day or less.

Please report any error in this calculated maximum allowable immediately, both to the Santa Fe office of the Commission and the appropriate district proration office.

In order that the allowable assigned to the project may be kept current, and in order that the operator may fully benefit from the allowable provisions of Rule 701, it behooves him to promptly notify both of the aforementioned Commission offices by letter of any change in the status of wells in the project area, i.e., when active injection commences, when additional injection or producing wells are drilled, when additional wells are acquired through purchase or unitization, when wells have received a response to water injection, etc.

Your cooperation in keeping the Commission so informed as to the status of the project and the wells therein will be appreciated.

Very truly yours,

A. L. PORTER, Jr. Secretary-Director

CC: OCC: Hobbs x
Artesia
Aztec

Mr. Frank Irby, State Engineer Office, Santa Fe, New Mexico

Mr. D. E. Gray



# OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO P. O. BOX 2088 - SANTA FE 87801 GOVERNOR
DAVID F. CARGO
CHAIRMAN

LAND COMMISSIONER ALEX J. ARMIJO MEMBER

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

September 17, 1969

Mr. Jason Kellahin Kellahin & Fox Attorneys at Law Post Office Box 1769 Santa Fe, New Mexico Re: Case No. 4214
Order No. R-2197-A
Applicant:

Amerada Hess 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,

Lower for A. L. PORTER, Jr.
Secretary-Director

ALP/ir

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. 4214 Order No. R-2197-A

APPLICATION OF AMERADA HESS CORPORATION FOR APPROVAL OF AN UNORTHODOX INJECTION WELL LOCATION AND THE AMENDMENT OF ORDER NO. R-2197, LEA COUNTY, NEW MEXICO.

### ORDER OF THE COMMISSION

### BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on September 10, 1969, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 17th day of September, 1969, 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 the applicant, Amerada Hess Corporation, is the operator of the Langlie Mattix Woolworth Unit Waterflood Project, Langlie Mattix Woolworth Unit Area, Langlie-Mattix Pool, Lea County, New Mexico.
- (3) That the applicant now seeks approval of its Langlie Mattix Woolworth Unit Well No. 710 at an unorthodox location 1950 feet from the North line and 50 feet from the East line of Section 27, Township 24 South, Kange 37 East, NMPM, Langlie-Mattix Pool, Lea County, New Mexico, as an additional water injection well in its Langlie Mattix Woolworth Unit Waterflood Project.
- (4) That the proposed unorthodox location is necessary to provide an efficient water injection pattern.

-2-CASE No. 4214 Order No. R-2197-A

- (5) That the applicant seeks further amendment of said Order No. R-2197 to provide for the establishment of an administrative procedure whereby the Secretary-Director of the Commission may authorize additional injection wells within the Langlie Mattix Woolworth Unit at locations no closer than 50 feet to the outer boundary of the Unit area as may be necessary to complete an efficient injection pattern without the necessity of showing well response.
- (6) That approval of the aforesaid amendment will afford the applicant the opportunity to produce its just and equitable share of the oil and gas in the Langlie-Mattix Pool, and will otherwise prevent waste and protect correlative rights, provided said injection wells are drilled no closer than 50 feet to the outer boundary of said Langlie Mattix Woolworth Unit nor closer than 10 feet to any quarter-quarter section or subdivision inner boundary.
- (7) That the Langlie Mattix Woolworth Unit Waterflood Project should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations; provided, however, that the showing of well response as required by Rule 701 E-5 shall not be necessary before obtaining administrative approval for the conversion of additional wells to water injection.

## IT IS THEREFORE ORDERED:

- (1) That the applicant, Amerada Hess Corporation, is hereby authorized to expand its Langlie Mattix Woolworth Unit Waterflood Project, Langlie Mattix Woolworth Unit Area, Langlie-Mattix Pool, by the injection of water into the Seven Rivers-Queen formation through its Langlie Mattix Woolworth Unit Well No. 710 at an unorthodox location 1950 feet from the North line and 50 feet from the East line of Section 27, Township 24 South, Range 37 East, NMPM, Lea County, New Mexico.
- (2) That Order (2) of Commission Order No. R-2197 is hereby further amended to read in its entirety as follows:
- "(2) That the Langlie Mattix Woolworth Unit Waterflood Project shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations;

PROVIDED HOWEVER, That the Secretary-Director of the Commission may approve expansion of the Langlie Mattix Woolworth

-3-CASE No. 4214 Order No. R-2197-A

Unit Waterflood Project to include such additional lands and injection wells and producing wells at orthodox and unorthodox locations as may be necessary to complete an efficient injection and producing pattern, provided said producing wells are drilled no closer than 330 feet to the outer boundary of said Langlie Mattix Woolworth Unit nor closer than 10 feet to any quarterquarter section or subdivision inner boundary, and provided said injection wells are drilled no closer than 50 feet to the outer boundary of said Langlie Mattix Woolworth Unit nor closer than 10 feet to any quarter-quarter section or subdivision inner boundary, and provided further, that the application therefor has been filed in accordance with Rule 701 B of the Commission Rules and Regulations, and provided further, that a copy of the application has been sent to all offset operators, if any there be, and no such operator has objected within 15 days, and provided further, that the applicant shall, in the case of injection wells to be completed closer than 330 feet to the outer boundary of said unit, present written consent in the form of waivers from all operators offsetting the proposed location. The showing of well response as required by Rule 701 E-5 shall not be necessary before obtaining administrative approval for the conversion of additional wells to water injection."

- (3) That Order No. (2) of Commission Order No. R-3704, which amended Commission Order No. R-2197, is hereby superseded.
- (4) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

DAVID F. CARGO, Challeman

ALEX J. ARMIJO, Member

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

-2-CASE No. 4054 Order No. R-3704

- (5) That the applicant further seeks the amendment of said Order No. R-2197 to provide for the establishment of an administrative procedure whereby the Secretary-Director of the Commission may authorize expansion of said Langlie Mattix Woolworth Unit Waterflood Project to include additional lands and injection wells and producing wells at orthodox and unorthodox locations as may be necessary to complete an efficient injection and producing pattern without the necessity of showing well response.
- (6) That approval of the aforesaid amendment will afford the applicant the opportunity to produce its just and equitable share of the oil and gas in the Langlie-Mattix Pool, and will otherwise prevent waste and protect correlative rights, provided said producing wells and injection wells are drilled no closer than 330 feet to the outer boundary of said Langlie Mattix Woolworth Unit nor closer than 10 feet to any quarter-quarter section or subdivision inner boundary.
- (7) That the Langlie Mattix Woolworth Unit Waterflood Project should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations; provided, however, that the showing of well response as required by Rule 701 E-5 shall not be necessary before obtaining administrative approval for the conversion of additional wells to water injection.

#### IT IS THEREFORE ORDERED:

- (1) That the applicant, Amerada Petroleum Corporation, is hereby authorized to drill a producing oil well in the Langlie Mattix Woolworth Unit Waterflood Project in its Langlie Mattix Woolworth Unit Area, Langlie-Mattix Pool, at an unorthodox location 2220 feet from the South line and 1250 feet from the West line of Section 28, Township 24 South, Range 37 East, NMPM, Lea County, New Mexico.
- (2) That Order (2) of Order No. R-2197 is hereby amended to read in its entirety as follows:
- "(2) That the Langlie Mattix Woolworth Unit Waterflood Project shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations;

PROVIDED HOWEVER, that the Secretary-Director of the Commission may approve expansion of the Langlie Mattix Woolworth Unit Waterflood Project to include such additional lands and

# 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. 4054 Order No. R-3704

APPLICATION OF AMERADA PETROLEUM CORPORATION FOR AN UNORTHODOX OIL WELL LOCATION AND AMENDMENT TO ORDER NO. R-2197, LEA COUNTY, NEW MEXICO.

## ORDER OF THE COMMISSION

#### BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 26, 1969, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 12th day of March, 1969, 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 the applicant, Amerada Petroleum Corporation, is the operator of the Langlie Mattix Woolworth Unit Waterflood Project in its Langlie Mattix Woolworth Unit Area, Langlie-Mattix Pool, Lea County, New Mexico, app ved by Commission Order No. R-2197 and expanded by Orders No. R-3407, as amended by R-3407-A.
- (3) That the applicant seeks authority to drill a producing oil well in said waterflood project area at an unorthodox location 2220 feet from the South line and 1250 feet from the West line of Section 28, Township 24 South, Range 37 East, NMPM, Lea County, New Mexico.
- (4) That the proposed unorthodox location is necessary to complete an efficient oil producing pattern.

-3-CASE No. 4054 Order No. R-3704

injection wells and producing wells at orthodox and unorthodox locations as may be necessary to complete an efficient injection and producing pattern, provided said wells are drilled no closer than 330 feet to the outer boundary of said Langlie Mattix Woolworth Unit nor closer than 10 feet to any guarter-quarter section or subdivision inner boundary, and provided that the application therefor has been filed in accordance with Rule 701 B of the Commission Rules and Regulations, and provided further, that a copy of the application has been sent to all offset operators, if any there be, and no such operator has objected within 15 days. The showing of well response as required by Rule 701 E-5 shall not be necessary before obtaining administrative approval for the conversion of additional wells to water injection."

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

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

DAVID F. CARGO, Chairman

ALEX J. ARMIJO, Member

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

SEAL

Examiner Hearing - September 10, 1969

Docket No. 25-69

(Case 4213 continued)

creation of a new basal Penrose gas pool for its Buffalo unit Well No. 11 located at an unorthodox gas well location 2310 feet from the South line and 330 feet from the West line of Section 35, Township 18 South, Range 33 East, Lea County, New Mexico. Applicant further seeks approval of an 80-acre non-standard gas proration unit comprising the N/2 SW/4 of said Section 35, to be dedicated to the above-described well.

CASE 4214:

Application of Amerada Hess Corporation for approval of an unorthodox injection well location and the amendment of Order No. R-2197, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of an unorthodox water injection well location for its Langlie-Mattix Woolworth Unit Well No. 710 at a point 1950 feet from the North line and 50 feet from the East line of Section 27, Township 24 South, Range 37 East, Langlie-Mattix Pool, Lea County, New Mexico. Applicant also seeks further amendment of Order No. R-2197 to provide for an administrative procedure whereby additional injection wells might be approved at locations no closer than 50 feet to the outer boundary of the unit area.

CASE 4215: Application of Standard Oil Company of Texas to directionally drill, Eddy County, New Mexico. Applicant, in the abovestyled cause, seeks authority to directionally drill its Smith Federal Well No. 1, a wildcat located 1650 feet from the South and East lines of Section 34, Township 20 South, Range 24 East, Eddy County, New Mexico. Said well was drilled to a total depth of 7845 feet. Applicant proposes to plug the well back to approximately 5500 feet, set a whipstock at said depth and directionally drill to a depth of approximately 7800 feet to bottom said well in the Cisco formation at a point approximately 200 feet East of the present bottom hole location.

CASE 4216: Application of Tamarack Petroleum Company, Inc. for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Northeast Pearl-Queen Unit Area comprising 920 acres, more or less, of State and fee lands in Sections 15, 22, 23, and 24, Township 19 South, Range 35 East, Pearl-Queen Pool, Lea County, New Mexico.

## DOCKET: EXAMINER HEARING - WEDNESDAY - SEPTEMBER 10, 1969

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

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

- CASE 4210: Application of Mobil Oil Corporation for a special gas-oil ratio limitation, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Rule 506 of the Commission Rules and Regulations to provide for a limiting gas-oil ratio in excess of the existing ratio of 2000 cubic feet of gas per barrel of oil in the Lightcap (Devonian) Pool, Chaves County, New Mexico.
- CASE 4211: Application of Mobil Oil Corporation for a special gas-oil ratio limitation, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Rule 506 of the Commission Rules and Regulations to provide for a limiting gas-oil ratio in excess of the existing ratio of 2000 cubic feet of gas per barrel of oil in the Lightcap-Pennsylvanian Pool, Chaves County, New Mexico.

## CASE 3857: (Reopened)

In the matter of Case No. 3857 being reopened pursuant to the provisions of Order No. R-3504, which order established 160-acre spacing units and 80-acre proportional factors of 4.77 for the Tulk-Pennsylvanian Pool, Lea County, New Mexico, for a period of one year. All interested parties may appear and show cause why said pool should not be developed on less than 160-acre spacing units and why the 80-acre proportional factor of 4.77 should or should not be retained.

- CASE 4212: Application of General American Oil Company of Texas for an unorthodox oil well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill its Maddren "B" Well No. 12, a producing oil well, at an unorthodox location 1295 feet from the West line and 1815 feet from the South line of Section 27, Township 17 South, Range 30 East, as an infill well in its Grayburg Jackson Premier Unit Waterflood Project area, Grayburg-Jackson Pool, Eddy County, New Mexico.
- CASE 4213: Application of Texo Oil Company for pool medelineation, creation of a new gas pool, an unorthodox gas well location, and non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the redelineation of the vertical limits of the South Corbin-Queen Pool to permit the

Examiner Hearing - September 10, 1969

Docket No. 25-69

- CASE 4217: Application of Tamarack Petroleum Company, Inc. for a water-flood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a water-flood project in its Northeast Pearl-Queen Unit Area by the injection of water into the Queen formation through eight wells located in Sections 15, 22, 23, and 24, Township 19 South, Range 35 East, Pearl-Queen Pool, Lea County, New Mexico.
- CASE 4181: (Continued from the August 6, 1969, Examiner Hearing)

Application of J. M. Huber Corporation for a dual completion and salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete it Stoltz Federal Well No. 1 located in Unit J of Section 12, Township 15 South, Range 34 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Morton-Wolfcamp Pool and the disposal of produced salt water through the 8 5/8 X 4 1/2-inch casing-casing annulus into the San Andres, Tubb, Abo, and possibly other formations in the open-hole interval from approximately 4330 feet to 9750 feet.

程序是是多数的 36. 12在,并引力的自己的企业在企业基础的的企业中的对象的企业的企业。

# 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. 4054 Order No. R-3704

APPLICATION OF AMERADA PETROLEUM CORPORATION FOR AN UNORTHODOX OIL WELL LOCATION AND AMENDMENT TO ORDER NO. R-2197, LEA COUNTY, NEW MEXICO.

### ORDER OF THE COMMISSION

# BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 26, 1969, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 12th day of March, 1969, 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 the applicant, Amerada Petroleum Corporation, is the operator of the Langlie Mattix Woolworth Unit Waterflood Project in its Langlie Mattix Woolworth Unit Area, Langlie-Mattix Pool, Lea County, New Mexico, approved by Commission Order No. R-2197 and expanded by Orders No. R-3407, as amended by R-3407-A.
- (3) That the applicant seeks authority to drill a producing oil well in said waterflood project area at an unorthodox location 2220 feet from the South line and 1250 feet from the West line of Section 28, Township 24 South, Range 37 East, NMPM, Lea County, New Mexico.
- (4) That the proposed unorthodox location is necessary to complete an efficient oil producing pattern.

-2-CASE No. 4054 Order No. R-3704

- (5) That the applicant further seeks the amendment of said Order No. R-2197 to provide for the establishment of an administrative procedure whereby the Secretary-Director of the Commission may authorize expansion of said Langlie Mattix Woolworth Unit Waterflood Project to include additional lands and injection wells and producing wells at orthodox and unorthodox locations as may be necessary to complete an efficient injection and producing pattern without the necessity of showing well response.
- (6) That approval of the aforesaid amendment will afford the applicant the opportunity to produce its just and equitable share of the oil and gas in the Langlie-Mattix Pool, and will otherwise prevent waste and protect correlative rights, provided said producing wells and injection wells are drilled no closer than 330 feet to the outer boundary of said Langlie Mattix Woolworth Unit nor closer than 10 feet to any quarter-quarter section or subdivision inner boundary.
- (7) That the Langlie Mattix Woolworth Unit Waterflood Project should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations; provided, however, that the showing of well response as required by Rule 701 E-5 shall not be necessary before obtaining administrative approval for the conversion of additional wells to water injection.

#### IT IS THEREFORE ORDERED:

- (1) That the applicant, Amerada Petroleum Corporation, is hereby authorized to drill a producing oil well in the Langlie Mattix Woolworth Unit Waterflood Project in its Langlie Mattix Woolworth Unit Area, Langlie-Mattix Pool, at an unorthodox location 2220 feet from the South line and 1250 feet from the West line of Section 28, Township 24 South, Range 37 East, NMPM, Lea County, New Mexico.
- (2) That Order (2) of Order No. R-2197 is hereby amended to read in its entirety as follows:
- "(2) That the Langlie Mattix Woolworth Unit Waterflood Project shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations;

PROVIDED HOWEVER, that the Secretary-Director of the Commission may approve expansion of the Langlie Mattix Woolworth Unit Waterflood Project to include such additional lands and

-3-CASE No. 4054 Order No. R-3704

injection wells and producing wells at orthodox and unorthodox locations as may be necessary to complete an efficient injection and producing pattern, provided said wells are drilled no closer than 330 feet to the outer boundary of said Langlie Mattix Woolworth Unit nor closer than 10 feet to any quarter-quarter section or subdivision inner boundary, and provided that the application therefor has been filed in accordance with Rule 701 B of the Commission Rules and Regulations, and provided further, that a copy of the application has been sent to all offset operators, if any there be, and no such operator has objected within 15 days. The showing of well response as required by Rule 701 E-5 shall not be necessary before obtaining administrative approval for the conversion of additional wells to water injection."

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

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

DAVID F. CARGO, Chairman

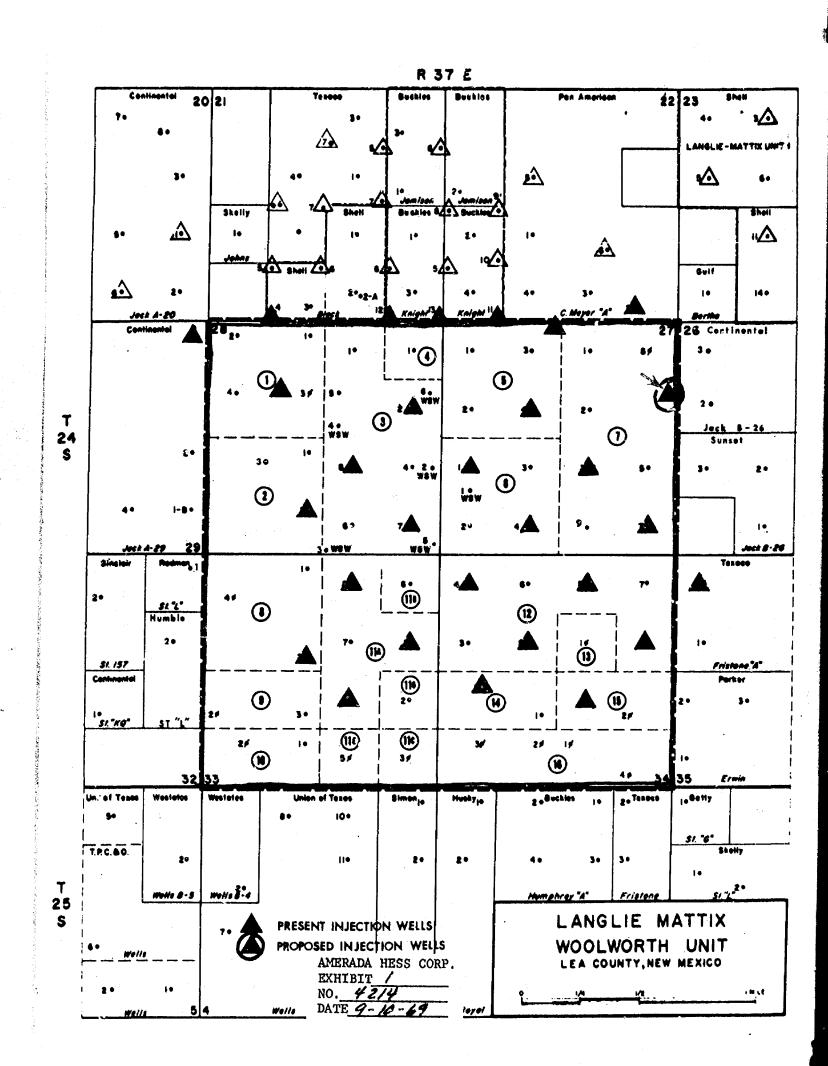
ALEX J. ARMIJO, Member

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

SEAL

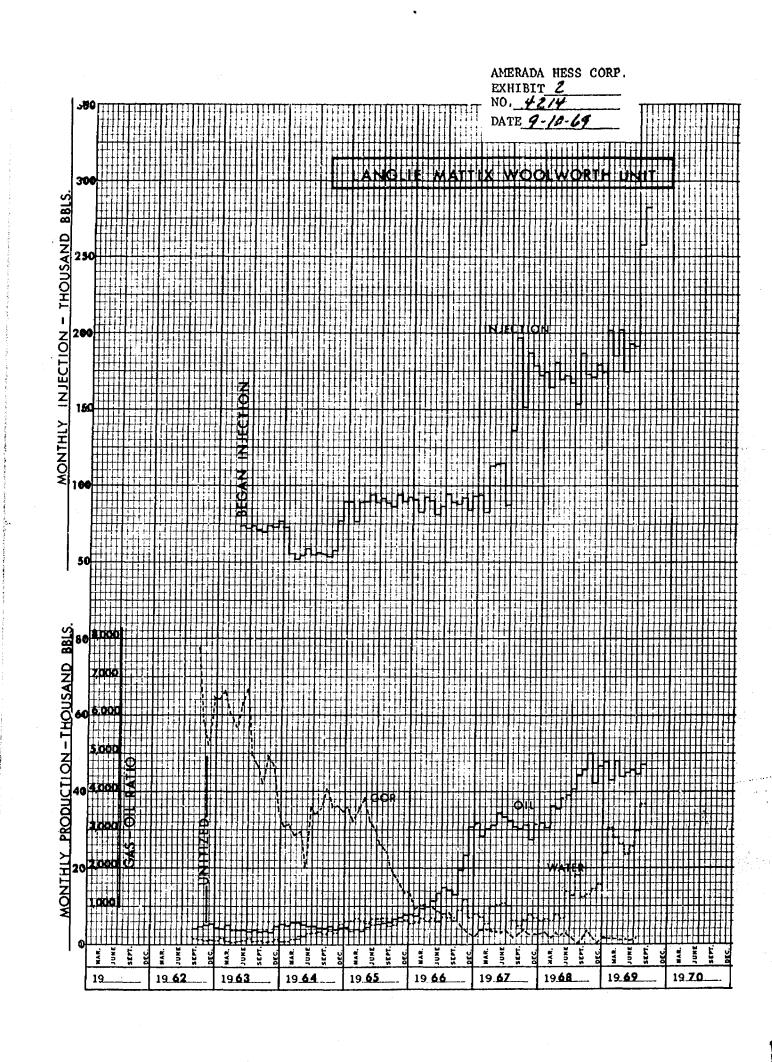
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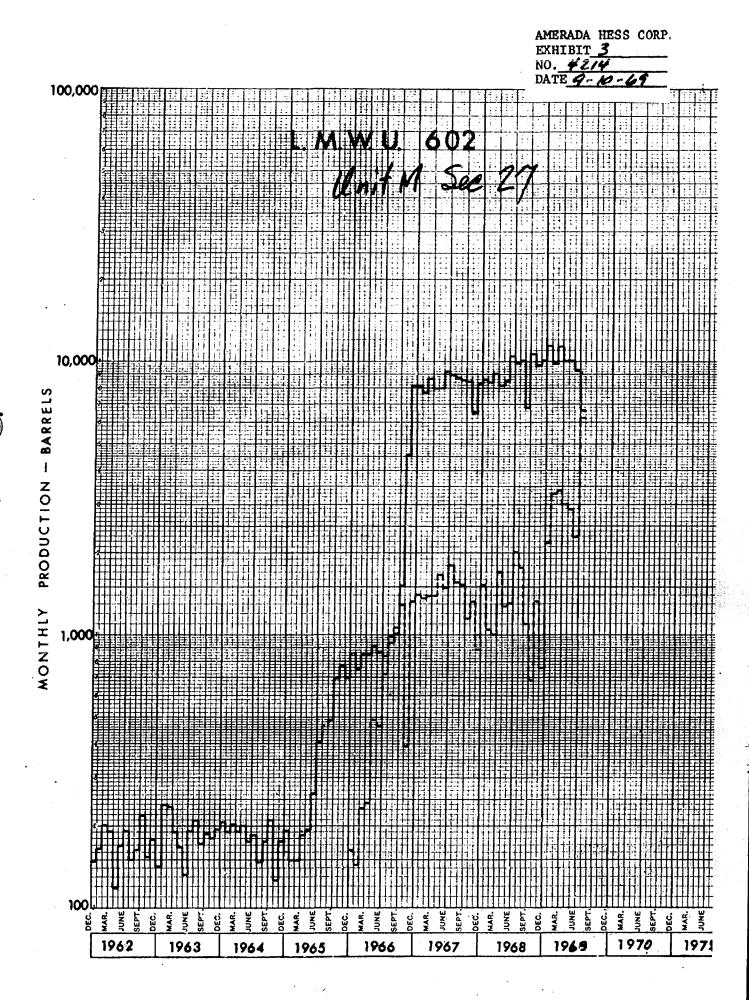
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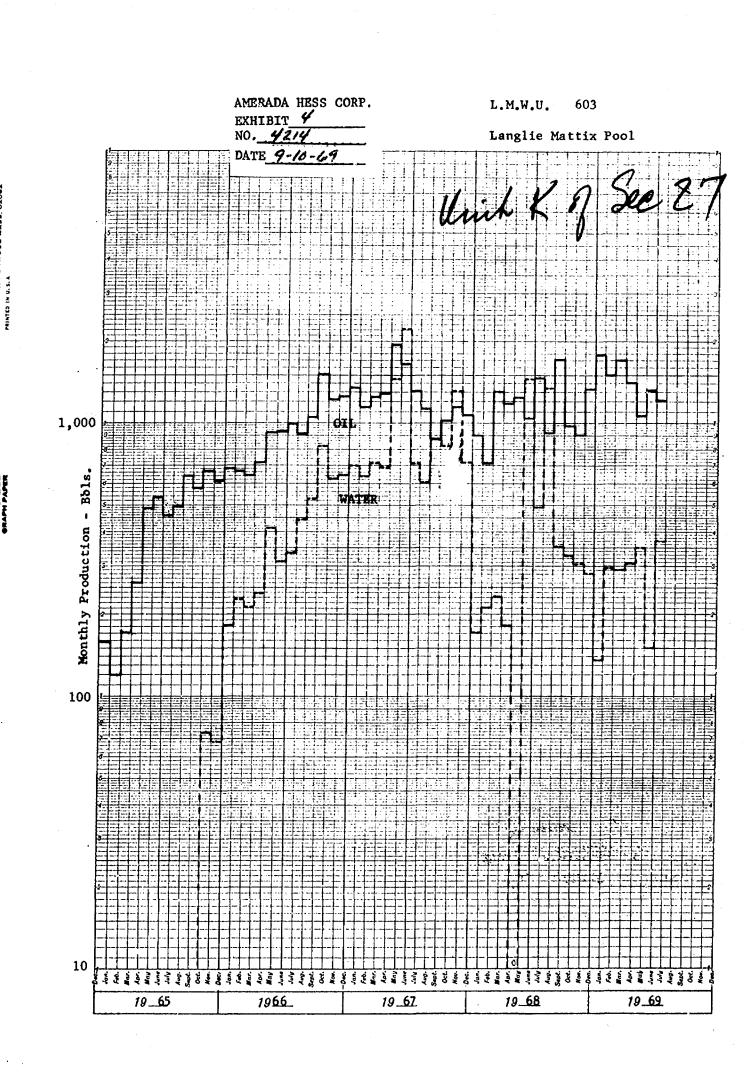


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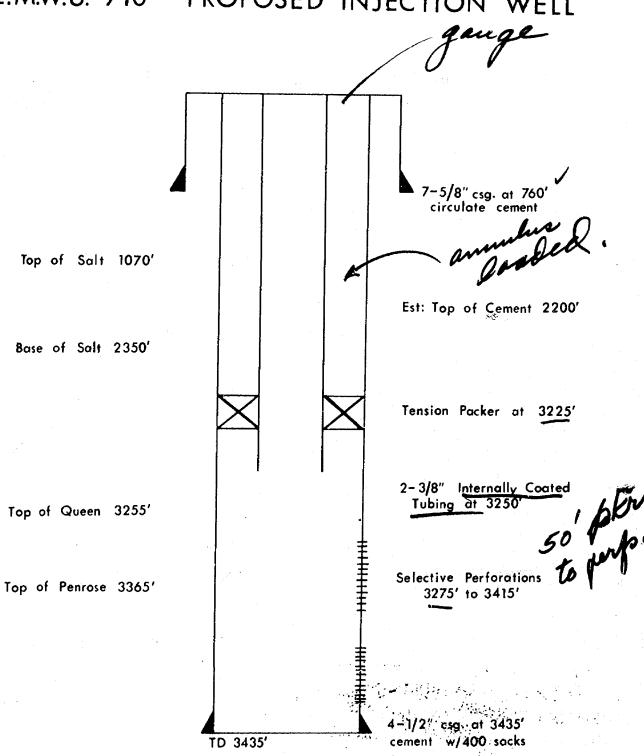
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# AMERADA HESS CORPORATION L.M.W.U. 710 - PROPOSED INJECTION WELL



AMERADA HESS CORP. EXHIBIT 5
NO. 42/4
DATE 9-10-69

GENERAL OFFICE BOX 2040 TULSA, OKLA. 74102

# Amerada Petroleum Corporation

P. O. BOX 312

MIDLAND, TEXAS 79701

Phone MU 4-5533

July 10, 1969

Sunset International Petroleum Corporation 201 Wall Building Midland, Texas 79701

Gentlemen:

Amerada Hess Corporation, operator of the Langlie Mattix Woolworth Unit, plans to drill and complete the Langlie Mattix Woolworth Unit well No. 710 as a water injection well in the Seven-Rivers Queen Zone. This well is located 1950' FNL and 50' FEL of Section 27, T-24-S, R-37-E, Lea County, New Mexico.

Please sign in the space provided below to indicate your waiver of all objections to the drilling and completing of well No. 710 as a water injection well.

Yours very truly,

AMERADA HESS CORPORATION

B.J. Lines
Amerada Division

Sunset International Pet. Corp.

AMERADA HESS CORP. EXMINIT\_ 6 9-10-67

PM 1 34

# Amerada Division Amerada hess corporation

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Box 2040 Tulsa, Oklahoma 74102

LEGAL DEPARTMENT

August 19, 1969

Can 4214

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 relating to unorthodox locations for injection wells in our Langlie Mattix Woolworth Unit, Lea County, New Mexico. Please set this application for hearing on September 10, 1969 if possible.

Very truly yours,

Thomas W. Lynch

TWL/jj Enclosure

cc: Mr. Jason Kellahin
P. O. Box 1769
Santa Fe, New Mexico 87501

DOCKET MALLED

Date 8-28-69

# BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

APPLICATION OF AMERADA HESS CORPORATION FOR APPROVAL OF AN UNORTHODOX LOCATION FOR AN INJECTION WELL IN ITS LANGLIE MATTIX WOOLWORTH UNIT AND FOR AN ADMINISTRATIVE PROCEDURE FOR APPROVAL OF ADDITIONAL INJECTION WELLS AT UNORTHODOX LOCATIONS IN SUCH UNIT, LANGLIE-MATTIX POOL, LEA COUNTY, NEW MEXICO

CASE NO. 4214

APPLICATION

Applicant Amerada Hess Corporation states that:

- 1. Applicant operates the Langlie Mattix Woolworth Unit in the Langlie-Mattix Pool, Lea County, New Mexico.
- 2. In order to improve the efficiency of the Langlie Mattix Woolworth Unit and to expedite cooperative injection agreements between the Unit and other operators in the Langlie-Mattix Pool this Commission should:
  - a. Approve the drilling of the Langlie Mattix Woolworth Unit Well No. 710 as a water injection well at a location 1950 feet from the North line and 50 feet from the East line of Section 27-24S-37E, Lea County, New Mexico;
  - b. Establish an administrative procedure for approving additional water injection wells for the Unit at unorthodox locations not closer than 50 feet from the Unit boundary.

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 HESS CORPORATION

Thomas W. Lynch, Attorne

P. 0. Box 2040 U Tulsa, Oklahoma 74102 GMH/esr

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:

APPLICATION OF AMERADA HESS CORPORATION FOR APPROVAL OF AN UNORTHODOX INJECTION WELL LOCATION AND THE AMENDMENT OF ORDER NO. R-2197, LEA COUNTY, NEW MEXICO.

4214 CASE No. R-2197-A Order No. R- 2197-A

#### ORDER OF THE COMMISSION

#### BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on September 10, 1969, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter .

day of <u>September</u>, 196<u>9</u>, the Commission, a NOW, on this\_ 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.
- That the applicant, Amerada Hess Corporation, is the operator of the Langlie Mattix Woolworth Unit Waterflood Project, Langlie Mattix Woolworth Unit Area, Langlie-Mattix Pool, Lea County, New Mexico.
- That the applicant now seeks approval of its Langlie Mattix Woolworth Unit Well No. 710 at an unorthodox location 1950 feet from the North line and 50 feet from the East line of Section 27, Township 24 South, Range 37 East, NMPM, Langlie-Mattix Pool, Lea County, New Mexico, as an additional water injection well in its Langlie Mattix Woolworth Unit Waterflood Project.
- (4) That the proposed unorthodox location is necessary to provide an efficient water injection pattern.

-2-CASE No. 4214 Order No. R-2197-A

- (5) That the applicant seeks further amendment of said Order No. R-2197 to provide for the establishment of an administrative procedure whereby the Secretary-Director of the Commission may authorize additional injection wells within the Langlie Mattix Woolworth Unit at locations no closer than 50 feet to the outer boundary of the Unit area as may be necessary to complete an efficient injection pattern without the necessity of showing well response.
- (6) That approval of the aforesaid amendment will afford the applicant the opportunity to produce its just and equitable share of the oil and gas in the Langlie-Mattix Pool, and will otherwise prevent waste and protect correlative rights, provided said injection wells are drilled no closer than 50 feet to the outer boundary of said Langlie Mattix Woolworth Unit nor closer than 10 feet to any quarter-quarter section or subdivision inner boundary.
- (7) That the Langlie Mattix Woolworth Unit Waterflood Project should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations; provided, however, that the showing of well response as required by Rule 701 E-5 shall not be necessary before obtaining administrative approval for the conversion of additional wells to water injection.

## IT IS THEREFORE ORDERED:

(1) That the applicant, Amerada Hess Corporation, is hereby authorized to expand its Langlie Mattix Woolworth Unit Waterflood Project, Langlie Mattix Woolworth Unit Area, Langlie-Mattix Pool, by the injection of water into the level formation through its Langlie Mattix Woolworth Unit Well No. 710 at an unorthodox location 1950 feet from the North line and 50 feet from the East

-2-CASE No. 4214 Order No. R-2197-A

line of Section 27, Township 24 South, Range 37 East, NMPM, Lea County, New Mexico.

- (2) That Order (2) of Commission Order No. R-2197 is hereby further amended to read in its entirety as follows:
- "(2) That the Langlie Mattix Woolworth Unit Waterflood Project shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations;

PROVIDED HOWEVER, that the Secretary-Director of the Commission may approve expansion of the Langlie Mattix Woolworth Unit Waterflood Project to include such additional lands and injection wells and producing wells at orthodox and unorthodox locations as may be necessary to complete an efficient injection and producing pattern, provided said producing wells are drilled no closer than 330 feet to the outer boundary of said Langlie Mattix Woolworth Unit nor closer than 10 feet to any quarter-quarter section or subdivision inner boundary, and provided said injection wells are drilled no closer than 50 feet to the outer boundary of said Langlie Mattix Woolworth Unit nor closer than 10 feet to any quarter-quarter section or subdivision inner boundary, and provided further, that the application therefor has been filed in accordance with Rule 701 B of the Commission Rules and Regulations, and provided further, that a copy of the application has been sent to all offset operators, if any there be, and no such operator has objected within 15 days, The showing of well response as required by Rule 701 E-5 shall not be necessary before obtaining administrative approval for the conversion of additional wells to water injection."

entry of such further orders as the Commission may deem necessary.

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

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