

CASE 3241: Application of GULF
OIL CORP. for a waterflood
project, Lea County, New Mexico

CASE No.

3241

Application,
TRANSCRIPTS,
SMALL Exhibits
ETC.

DEARNLEY-MEIER REPORTING SERVICE, Inc.

ALBUQUERQUE, N. M.
PHONE 243-6691

SANTA FE, N. M.
PHONE 983-3971

FARMINGTON, N. M.
PHONE 325-1182

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
June 30, 1965

EXAMINER HEARING

IN THE MATTER OF:

Application of Gulf Oil Corporation
for an amendment of Order R-2909, Lea
County, New Mexico.

Case No. 3241

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING



MR. NUTTER: We will call the next case, Case 3241.

MR. DURRETT: Application of Gulf Oil Corporation
for an amendment of Order R-2909, Lea County, New Mexico.

MR. KASTLER: If the Examiner please, I am Bill
Kastler from Roswell, appearing on behalf of Gulf, and our
witness is Donald H. Hoover.

(Whereupon, Applicant's Exhibits
VI-A, VII-A & VII-B marked for
Identification.)

DONALD H. HOOVER

called as a witness, having been first duly sworn on oath,
was examined and testified as follows?

DIRECT EXAMINATION

BY MR. KASTLER:

Q Mr. Hoover, have you previously appeared before the
New Mexico Oil Conservation Commission and hearing
Examiners and been qualified as an expert witness?

A Yes, I have.

Q As a petroleum engineer?

A Yes.

Q As a petroleum engineer are you familiar with the
area and circumstances surrounding our Central Drinkard unit
area?

A Yes, I am.

Q And in Case 3241, were you a witness?

A No, I was not.

MR. KASTLER: Are Mr. Hoover's qualifications satisfactory?

MR. NUTTER: Yes, they are.

Q What is the purpose of this hearing?

A We have requested the reopening of Case Number 3241 for the purpose of amending that portion of Order No. R-2909 which designated the Pilot Waterflood area in the Central Drinkard unit in Township 21 South, Range 37 East, Lea County, New Mexico.

Q Does Gulf plan to change the Pilot from the location originally proposed, and do you have an exhibit for reference?

A Yes, we do. We plan to change it in part and call the Examiner's attention to Exhibit No. Roman Numeral VI-A.

Q Is this exhibit the same as Exhibit No. VI previously entered?

A Yes.

Q With some minor changes?

A The reason we are calling it VI-A is because in the original hearing Roman Numeral VI was this plat with the original Pilot. We plan to eliminate two of the original six injection wells which were approved under Order R-2909, one of them being Pan American W.H. Turner Well Number 2 in

Unit O of Section 29; and the other one is the Gulf W.T. McCormick Number 13 in Unit A of Section 32. We plan to substitute in place of those two wells the Gulf Carson (NCT) A Well, Number 4 in Unit O of Section 28 and Mobil's Carson Number 7 in Unit C of Section 33. The Pilot would then be shown as outlined on Exhibit Roman Numeral VI-A which shows the injection wells circled and colored in red, and we have shaded in the Pilot area in orange.

Q Would there be any other changes in the Pilot from the previous testimony given in this case?

A No, it would still be a six well double 80-acre five-spot injection, injecting into the Drinkard formation at approximately 6500 feet; and the only difference is in the orientation of the project from the northeast southwest direction to the northwest southeast direction.

Q What necessitated the proposed change in the Pilot project?

A The Central Drinkard unit will become effective on July 1st, 1965. Three tracts on the west side of this unit will not be included in the unit initially and one of the injection wells that we originally proposed would directly offset one of these tracts which will not qualify.

Q By not being included, you mean they would be within the unit area but not presently committed to the unit



agreement, is that correct?

A That's correct.

Q All right, go ahead. Are you ready for the next question?

A Yes, that finishes that.

Q Which tracts will not be unitized on July 1st?

A Tracts Number 10, which is Mobil's Hardy lease, described as the Northwest Quarter of Section 29, will not be included; in that particular tract Mobil was agreeable to coming in but one of their partners did not sign.

Sinclair's W.H. Turner lease which is Tract 20 and described as the North Half, Southwest Quarter, also will not qualify.

Q Would you now please explain Exhibit VII-A and VII-B?

A Exhibit Roman Numeral VII-A is a schematic diagram of the proposed injection well on Gulf's J.N Carson (NCT) A Well Number 4 located in Unit 0 of Section 28, 21 South, 37 East. We show 13-3/8 inch casing set at two hundred ninety-nine feet, cemented with three hundred sacks of cement and the cement was circulated. We have 9-5/8 OD casing set at 2850 feet cemented with 1350 sacks and by temperature survey the top of the cement was at 540 feet. Seven-inch casing set at 6516 feet cemented with 700 sacks, temperature survey indicated the top of the cement at 1280 feet. We

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will inject below a packer into the open hole Drinkard section 6516 to 6615 feet. We will inject down 2-3/8 inch tubing below the packer into the open hole, and the tubing casing annulus will be loaded with the inhibited water. This well is completed in the Bliaerby Gas, and the perforations at 5475 feet to 5630 feet will be squeeze cemented.

The Exhibit Roman Numeral VII-B is a schematic diagram of the Mobil Carson Number 7 located in Unit C of Section 33, 21 South, 37 East. This well has 9-5/8 inch casing set at 1217 feet, and it was cemented with 325 sacks; seven-inch casing set at 3625 feet cemented with 275 sacks; five-inch casing set at 6623 feet cemented with 260 sacks, and the temperature survey showed the top of the cement behind the five-inch at 2960 feet. This injection will be through perforations in the Drinkard, 6520 to 6600 feet. We will inject identical to the other well down Plasti-koted tubing below the packer with inhibited water in the tubing casing a annulus.

Q Has the State Engineer's office been consulted in regard to these two injection wells which Gulf proposes to substitute?

A Yes, they were. They were furnished a copy of our application and furnished with logs, a plat and the schematic; and the only question that we had from them, we did not give

them the cement behind the five-inch casing and that was subsequently furnished to them by letter. Other than that we had no questions from them.

Q How will this produced change in the pilot affect the oil allowable for the project?

A It won't change it any over the originally approved allowable. Under the old system or the original pilot, we had 24 units which qualified, and we advised that we were going to immediately recomplete a well in the Drinkard which would make it 25, that was the McCormick Number 12 which we were going to recomplete, and that gave an allowable of 1859 barrels per day based on this depth.

Under this proposed pilot re-oriented as shown on Roman Numeral Exhibit VI-A. We will have 24 wells which have Drinkard wells completed on them, and we plan to immediately after injection starts; to recomplete the Gulf's Carson (NCT) A Well Number 3 which is located in Unit B of Section 33, and that will give us 25 wells, an allowable of 1859 barrels of oil per day.

Q Were Exhibits VI-A and VII-A and VII-B prepared at your direction to reflect the true status of the changes in the proposed project?

A Yes, sir, they were.

MR. KASTLER: At this time I would like to enter

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Exhibits VI-A, VII-A and VII-B into evidence.

MR. NUTTER: Applicant's VI-A, VII-A and VII-B will be admitted into evidence.

MR. KASTLER: This completes my direct examination.

MR. NUTTER: Are there any questions of Mr. Hoover?

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Hoover, at the time of the original hearing there were a couple of wells that were not in the Drinkard and at that time you weren't planning to convert them. Which were those, do you recall, or maybe they weren't in the project area, is that it?

A There was only one well- - Well, let's see. I will have to reorient myself. On that Exhibit VI that you are looking at, all of the existing Drinkard completions are circled.

Q Right.

A And the proposed locations where a Drinkard well is not now completed are squared.

Q And the McCormick No. 12 was a square but you are going to recomplete it in the Drinkard?

A We were under the old Pilot.

Q And the Eunice King Number 2, I believe it is, in

D of 28?

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A Yes. Of course, that has not been definitely selected but I believe 6 is the one that is boxed.

Q Is it 6 rather than 2?

A Yes.

Q That is not in the Drinkard but it will be completed in the Drinkard?

A Yes, eventually. What we plan to do under this new pilot, since we want to recomplete that Carson A Well No. 3 in Unit B of Section 33 to give us our 25 wells that will qualify, we will do that immediately because we will have a two-way push from the two injection wells as shown on Exhibit VI-A. You can see that we get a push from the well in Unit O of Section 28 and the well in Unit C of Section 33. We will have a two-way push so we want to complete that right away.

Now, on the other wells that we will lack the other three wells to make the full 28 that you can get under a pilot like this, one of them would be in Unit D of Section 28, which is a Eunice King Number 6 and the Mobil Carson Number 10 in Unit E and their Carson Number 11 in Unit G of 33. Those wells will be recompleted after, if this thing starts responding, it looks like it's going to be successful, then those will eventually be put on or deepened to provide a well. Initially, right to start with, well, not only the

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Carson A Number 3, we plan to do that one immediately on injection.

Q So, actually in your project area that you have now with the reoriented Pilot pattern, you've got the Number 6 in 28?

A Yes, sir.

Q You have the Number 3 in 33, Number 10 and the Number 5, the Number 11?

A Yes.

Q In 33?

A Yes.

Q Which are not in the Drinkard at the present time?

A That's right.

Q The Number 3 will be completed immediately?

A Right.

Q And the others will be completed later on?

A Yes.

Q At that time the project area would qualify for it's maximum allowable?

A Yes. If this looks like it's going to be successful, get a response, then consideration of those wells will be taken into account then. But right now we would have 24 wells which qualify; one which we recompleted, that Carson Number 3, which would make the 25 wells that we would have

qualified under 7010 or start on injection thereafter.

MR. NUTTER: Thank you. Are there any other questions of Mr. Hoover? If there are no further statements of this witness, you maybe excused. Do you have anything further you wish to offer, Mr. Kastler?

MR. KASTLER: Nothing further.

MR. NUTTER: Does anyone have anything they wish to offer in Case 3241, reopened?

MR. IRBY: Frank E. Irby, the State Engineer's office. The State Engineer's Office has no objections to the granting of this application provided that wells number 4 and number 7 are constructed and equiped in the manner shown on the schematic drawings submitted at the hearing.

MR. NUTTER: Thank you, Mr. Irby. Does anyone else have anything they wish to offer in the case. We will take the Case under advisement, and the hearing is adjourned.

STATE OF NEW MEXICO)
COUNTY OF BERNALILLO)

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

WITNESS my Hand and Seal this 16th day of July,
1965.

Denny Watts
DENNY WATTS

My Commission Expires:
April 9, 1969.

I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner Hearing of Case No. 3241
heard by me on 6/30, 19 65.

[Signature] Examiner
New Mexico Oil Conservation Commission

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Gulf Oil Corporation

ROSWELL PRODUCTION DISTRICT

W. B. Hopkins
DISTRICT MANAGER
M. J. Taylor
DISTRICT PRODUCTION
MANAGER
F. O. Mortlock
DISTRICT EXPLORATION
MANAGER
H. A. Rankin
DISTRICT SERVICES MANAGER

March 23, 1965

P. O. Drawer 1938
Roswell, New Mexico 86201

Secretary Director
New Mexico Oil Conservation Commission
Post Office Box 2088
Santa Fe, New Mexico 87501

Re: Application of Gulf Oil Corporation for Approval of the
Central Drinkard Unit Agreement, Providing for Secondary
Recovery Operations in a Portion of the Drinkard Pool,
Lea County, New Mexico

Dear Sir:

Gulf Oil Corporation, as the proposed Unit Operator, respectfully requests the Commission's approval of the Central Drinkard Unit Agreement on the grounds that the proposed Unit plan will, in principle, tend to promote the conservation of oil and gas and the prevention of waste. In support of its application, Gulf states as follows:

- (1) That the Unit Area shall be:

T. 21 S. - R. 37 E.

Section 28: All
Section 29: All
Section 30: E/2 SE/4
Section 31: E/2 NE/4, NE/4 SE/4
Section 32: E/2, NW/4
Section 33: All

containing 2,600.00 acres, more or less, more fully shown on the enclosed plat marked Enclosure A.

- (2) That the average daily production for the wells in the proposed Unit Area has declined to approximately six barrels per day per well, and all wells have reached an advanced stage of depletion as described in Rule 701(E)(1).
- (3) That the applicant initially proposes to convert six wells to water injection wells. The description of these six wells, together with each well's casing program, is shown on the enclosed exhibits marked Enclosure B and C, respectively. A copy of a typical injection well log is enclosed marked Enclosure D.
- (4) That the applicant plans to develop a saline water source within the Unit Area from the San Andres formation. Plans are to inject approximately 750 barrels of water per day into each injection well.
- (5) That the order of the Commission should become effective upon the first day of the month following the final approval of said Unit Agreement by the Commissioner of Public Lands of the State of New Mexico, and shall terminate ipso facto upon the termination of said Unit Agreement.
- (6) That a copy of this application with enclosures has been sent to the State Engineer Office. Gulf Oil Corporation has previously obtained preliminary approval of the Unit Agreement from the Commissioner of Public Lands of the State of New Mexico.

DOCKET MAILED

Date 4-15-65
R



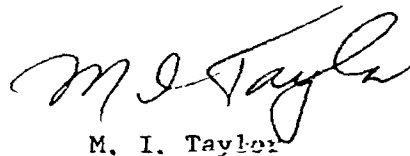
Secretary Director
New Mexico Oil Conservation Commission

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March 23, 1965

It is requested that this matter be set for hearing before an examiner.

Respectfully submitted
GULF OIL CORPORATION



M. I. Taylor

Enclosures

VMH:bc

cc: New Mexico Oil Conservation Commission
Post Office Box 1980
Hobbs, New Mexico 88240

State Engineer Office
Post Office Box 1079
Santa Fe, New Mexico 87501

State Land Office
Post Office Box 1148
Santa Fe, New Mexico 87501
Attention: Mrs. Marian M. Rhea

All Unit Working Interest Owners
(Less Exhibits)

DATA FOR
ALLOWABLE CALCULA-
 PROPOSED CENTRAL DRINKARD UNIT
TIONS ON LAST MAP
 OIL CONSERVATION COMMISSION HEARING
IN THIS BOOKLET
 CASE NUMBER 3241 *Am*

*17 total acreage
 91% WI have signed
 4 owners with not but none
 of them have signed
 R.P. of 100% signed
 91% of 100% signed*

*April 1964
 alloc of remaining 100% production
 50% on basis of tract owned
 40 total of 100%
 50% on basis of tract production
 alloc of remaining 100% production
 100% on remaining reserves
 of secondary oil tract to be*

Operator Gulf Oil Corporation Date April 28, 1965
Project Central Drinkard Unit Waterflood
Pool Drinkard County Lea
Reservoir Drinkard

I. RESERVOIR CHARACTERISTICS

A. Information on Reservoir

1. Name of Reservoir Drinkard (See Exhibit No. I)
2. Composition Buff to gray, fine crystalline dolomite with occasional very thin green to black dolomitic shale partings.
3. Structure A northwest-southeast trending anticline with dip of about 70 feet per mile. Exhibit No. II.

B. Information on Proposed Project Area

1. Number of Productive Acres in Project Area to be Flooded Unitized area is 2,600 acres as shown on Exhibit No. I.
2. Average Depth to Top of Pay 6,500 feet (See Exhibit No. III)
3. Estimated Average Gross Thickness 100 feet
4. Estimated Average Effective Thickness 50 feet
5. Estimated Average Effective Porosity 10%

II. PRIMARY PRODUCTION HISTORY AND PRESENT STATUS OF PROJECT AREA

- A. Date First Well Completed 1945
- B. Oil and Water Production History by Months See Performance Curves on Exhibit No. IV and Production Data on Exhibit No. V.
- C. Type of Depletion Solution gas drive
- D. Original Reservoir Pressure 2,660 psig
- E. Oil Gravity 36° API
- F. Stage of Depletion of Project Area Late
- G. Number of Wells in Project Area Drinkard: 45 Producing, 3 Shut In, 17 Recompleted.
- H. Average Daily Oil Production Per Well at Present Time 6 barrels

I. Cumulative Oil Production as of January 1, 1965 from Area to be Flooded
2,137,185 barrels

J. Remaining Primary Reserves from January 1, 1965 552,975 barrels

III. INJECTION INFORMATION

A. Source of Injected Water Gulf's J. N. Carson (NCT-C) No. 8 situated in Unit H of Section 28, T-21S, R-37E, will be recompleted as a San Andres water supply well.

B. Type of Water Brackish - Injection system will be corrosion-resistant.

C. Treatment of Injected Water None is anticipated; however, if water analysis after development indicates treatment is needed, appropriate action will be taken.

D. Pattern and Spacing 80-acre 5-spot pattern as shown on Exhibit No. VI.

E. Initial Injection Pressure to be Used Maximum pressure expected will be in the range of 2,500 to 3,000 psig.

F. Estimated Initial Per Well Rate of Injection 500-750 barrels per day.

G. Additional Injection and Producing Wells to be Drilled None

H. Injection Well Geometry Water will be injected through internally plastic coated tubing below a packer situated in the casing as shown on Exhibit No. VII.

IV. RESULTS EXPECTED

It is believed that the proposed waterflood will provide recovery of additional oil in the magnitude of 75% of the reservoir's ultimate primary recovery. In terms of barrels, the increased recovery due to waterflooding should be about 7,250,000 barrels of oil.

V. REASONS AND RECOMMENDATIONS

The Drinkard Pool produces by a solution gas drive mechanism and, as a result, a considerable quantity of oil will remain unrecovered at the end of primary depletion unless some type of fluid injection project is inaugurated to increase the ultimate oil recovery.

In view of these considerations, Gulf, in association with Amerada, Marathon, Mobil, Pan American, Skelly and Sunray has concluded the best course of action is the unitization of the wells in the portion of the Drinkard Pool shown on Exhibit No. I so a jointly owned waterflood project can be undertaken. Therefore, Gulf Oil Corporation, as the Drinkard Unit Operator-elect, respectfully requests the Oil Conservation Commission approve the installation of the proposed waterflood facilities and grant a Unit oil allowable equal to the sum of the current allowables for the Unit wells not offset by water injection wells plus the allowable earned by the wells situated in the pilot waterflood area as provided in Rule 701 (E) Subparagraph 3 of the Commission Rules and Regulations.

EXHIBIT NO. V
MONTHLY OIL, WATER AND GAS PRODUCTION
PROPOSED CENTRAL DRINKARD UNIT

MONTH AND YEAR	OIL BARRELS	WATER BARRELS	GAS MCF	MONTH AND YEAR	OIL BARRELS	WATER BARRELS	GAS MCF
<u>1964</u>				<u>1963</u>			
Jan.	7,899	1,050	137,057	Jan.	10,096	1,465	194,904
Feb.	7,457	1,310	142,776	Feb.	8,734	1,260	176,164
Mar.	8,471	1,488	164,593	Mar.	9,518	1,391	183,388
Apr.	8,041	1,354	151,022	Apr.	8,672	1,412	183,734
May	8,222	868	152,978	May	9,007	1,395	184,882
June	7,617	746	143,766	June	8,395	1,182	158,517
July	7,445	810	171,298	July	8,315	1,503	181,215
Aug.	8,070	934	167,511	Aug.	8,406	1,289	168,118
Sept.	7,406	847	153,864	Sept.	8,362	1,336	155,978
Oct.	7,959	910	154,749	Oct.	8,142	1,399	172,478
Nov.	7,716	851	155,471	Nov.	7,669	1,414	141,279
Dec.	8,086	1,775	144,776	Dec.	7,848	1,450	135,744
<u>1962</u>				<u>1961</u>			
Jan.	11,961	1,604	206,703	Jan.	12,381		15,885
Feb.	10,208	1,211	202,112	Feb.	11,367		14,689
Mar.	12,062	1,832	231,097	Mar.	12,918		15,452
Apr.	11,694	913	235,648	Apr.	12,238		14,231
May	11,080	1,213	255,515	May	12,500		14,002
June	9,197	1,478	216,201	June	12,387		12,601
July	10,194	1,430	234,702	July	11,978		13,153
Aug.	9,598	1,371	218,936	Aug.	12,566		13,855
Sept.	9,031	1,409	207,828	Sept.	11,061		13,153
Oct.	9,657	1,568	223,590	Oct.	11,812		13,268
Nov.	9,411	1,333	184,746	Nov.	11,513		11,464
Dec.	9,955	1,476	204,184	Dec.	11,591		12,049
<u>1959</u>				<u>1957</u>			
Jan.	19,824		21,110	Jan.	23,737		28,111
Feb.	18,102		21,812	Feb.	21,224		26,131
Mar.	19,129		23,006	Mar.	22,818		28,156
Apr.	19,094		21,729	Apr.	21,433		27,688
May	19,082		22,089	May	21,349		26,675
June	17,259		21,238	June	20,412		24,593
July	16,939		18,207	July	19,290		21,533
Aug.	16,992		18,905	Aug.	19,399		22,584
Sept.	15,217		18,849	Sept.	18,239		21,491
Oct.	16,758		20,479	Oct.	20,637		21,646
Nov.	15,783		18,829	Nov.	21,637		21,807
Dec.	16,275		19,451	Dec.	21,884		23,153
<u>1958</u>				<u>1956</u>			
Jan.				Jan.			
Feb.				Feb.			
Mar.				Mar.			
Apr.				Apr.			
May				May			
June				June			
July				July			
Aug.				Aug.			
Sept.				Sept.			
Oct.				Oct.			
Nov.				Nov.			
Dec.				Dec.			

EXHIBIT NO. V
MONTHLY OIL, WATER AND GAS PRODUCTION
PROPOSED CENTRAL DRINKARD UNIT

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<u>MONTH AND YEAR</u> <u>1955</u>	<u>OIL BARRELS</u>	<u>MONTH AND YEAR</u> <u>1954</u>	<u>OIL BARRELS</u>	<u>MONTH AND YEAR</u> <u>1953</u>	<u>OIL BARRELS</u>
Jan.	31,976	Jan.	35,907	Jan.	51,627
Feb.	29,516	Feb.	32,385	Feb.	45,730
Mar.	31,228	Mar.	36,339	Mar.	48,198
Apr.	28,897	Apr.	34,142	Apr.	45,871
May	29,472	May	35,561	May	46,205
June	28,527	June	34,054	June	43,797
July	28,562	July	31,302	July	39,413
Aug.	27,381	Aug.	30,560	Aug.	36,955
Sept.	26,866	Sept.	28,413	Sept.	36,600
Oct.	27,867	Oct.	30,941	Oct.	36,546
Nov.	27,459	Nov.	29,606	Nov.	33,429
Dec.	28,646	Dec.	30,155	Dec.	34,505

EXHIBIT NO. III

LOGS OF ALL AVAILABLE
PROPOSED INJECTION WELLS

CENTRAL DRINKARD UNIT

See Back Envelope

INCLUDED (✓)

EXCLUDED ()

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. 3241
Order No. M-2909-A

APPLICATION OF GULF OIL CORPORATION
FOR A WATERFLOOD PROJECT, LEA COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on June 30, 1965, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 13th day of July, 1965, 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 this case has been reopened upon application of Gulf Oil Corporation to delete the Pan American Turner Well No. 2 and the Gulf McCormack Well No. 13 from the water injection wells authorized for its Central Drinkard Unit Pilot Waterflood Project in the Drinkard Pool and to substitute as water injection wells its Gulf Carson Well No. 4 located in Unit O of Section 28 and its Mobil Carson Well No. 7 located in Unit C of Section 33, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico.

(3) That approval of the subject application should increase the efficiency of the pilot waterflood project and result in greater ultimate recovery of oil, thereby preventing waste.

-2-

CASE No. 3241

Order No. R-2909-A

IT IS THEREFORE ORDERED:

(1) That Order No. R-2909 is hereby amended by deleting from the water injection wells authorized for the Central Drinkard Unit Pilot Waterflood Project in the Drinkard Pool the Pan American Turner Well No. 2 and the Gulf McCormack Well No. 13 and substituting as water injection wells the Gulf Carson Well No. 4 located in Unit G of Section 28 and the Mobil Carson Well No. 7 located in Unit C of Section 33, Township 21 South, Range 37 East, NMPM, 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.

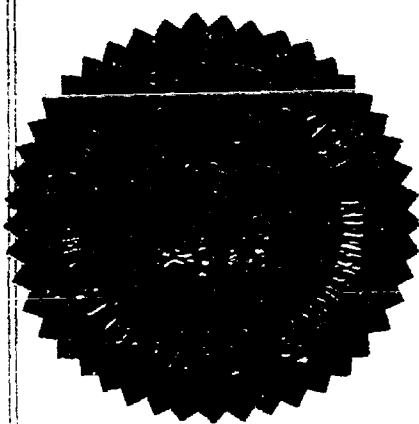
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

Jack M. Campbell
JACK M. CAMPBELL, Chairman

Guston B. Hays
GUSTON B. HAYS, Member

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



esr/

OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

July 15, 1965

C
O
P
Y
Mr. Bill Kastler
Gulf Oil Corporation
Post Office Box 1938
Roswell, New Mexico

Dear Sir:

Reference is made to Order No. R-2909-A, recently entered by the Commission, which amended Order No. R-2909 by substituting two injection wells for two previously authorized ones in your Central Drinkard Unit Waterflood Project, Lea County, New Mexico.

Injection into the newly authorized wells is to be through plastic coated tubing and packers.

As to allowable, our calculations indicate that when all of the authorized water injection wells have been placed on active injection, and when the wells in Unit D of Section 28, and Units B, F, and G of Section 33 have been recompleted in the Drinkard Pool, the maximum allowable which this project will be eligible to receive under the provisions of Rule 701-E-3 is 2082 barrels per day.

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

OIL CONSERVATION COMMISSION
P. O. BOX 871
SANTA FE, NEW MEXICO

Page -2-
Mr. Bill Kastler

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

ALP/DSH/ir

cc: Mr. Frank Irby

Oil Conservation Commission, Hobbs, New Mexico

C
O
P
Y

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. 3241
Order No. R-2909

APPLICATION OF GULF OIL CORPORATION
FOR A WATERFLOOD PROJECT, LEA COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on April 28, 1965, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 10th day of May, 1965, 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, Gulf Oil Corporation, seeks permission to institute a waterflood project in its Central Drinkard Unit Area, Drinkard Pool, by the injection of water into the Drinkard formation through six injection wells in Sections 28, 29, and 32, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico.

(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 waterflood project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

-2-

CASE No. 3241
Order No. R-2909

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

IT IS THEREFORE ORDERED:

(1) That the applicant, Gulf Oil Corporation, is hereby authorized to institute a waterflood project in its Central Drinkard Unit Area, Drinkard Pool, by the injection of water into the Drinkard formation through the following-described six wells in Township 21 South, Range 37 East, NMPM, Lea County, New Mexico:

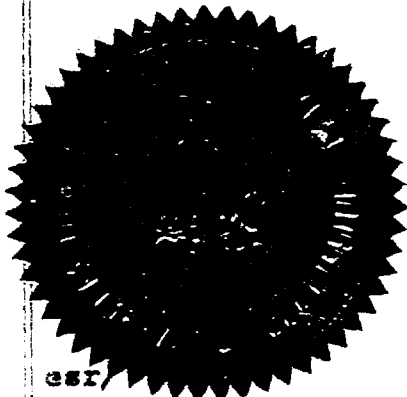
Operator - Lease	Well No.	Location Unit	Section
Gulf Eunice King	4	E	28
Marathon W. H. Turner	1	I	29
Gulf J. N. Carson	2	K	28
Pan American W. H. Turner	2	O	29
Mobil E. O. Carson	3	M	28
Gulf W. T. McCormack	13	A	32

(2) That the subject 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 waterflood project herein authorized 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.

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



STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

Jack M. Campbell
JACK M. CAMPBELL, Chairman

Guyton B. Hays
GUYTON B. HAYS, Member

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

csr/

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO

May 25, 1965

C
O
P
Y
Gulf Oil Corporation
P. O. Box 1938
Roswell, New Mexico

Attention: Mr. M. I. Taylor

Gentlemen:

Reference is made to your letter of May 13, 1965, regarding our letter of May 10, 1965, which transmitted copy of Commission Order No. 2909 approving your Central Drinkard Unit Waterflood Project.

You are correct in assuming that in computing the maximum allowable this waterflood project would be eligible to receive, we neglected to multiply by the Drinkard Pool depth factor of 1.77. In our letter of May 10, the reference to 1,050 barrels should be changed to 1,859 barrels per day and the reference to 126 barrels per day should be changed to 223 barrels per day.

Thank you for calling our attention to this matter.

Very truly yours,

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

ALP/DSN/og

cc: Oil Conservation Commission - Hobbs

Gulf Oil Corporation

ROSWELL PRODUCTION DISTRICT

W. B. Hopkins
DISTRICT MANAGER
M. I. Taylor
DISTRICT PRODUCTION
MANAGER
F. O. Mortlock
DISTRICT EXPLORATION
MANAGER
H. A. Rankin
DISTRICT SERVICES MANAGER

May 13, 1965

P. O. Drawer 1938
Roswell, New Mexico 88201

Oil Conservation Commission
State of New Mexico
Post Office Box 2088
Santa Fe, New Mexico 87501

Attention: Mr. A. L. Porter, Jr.
Secretary-Director

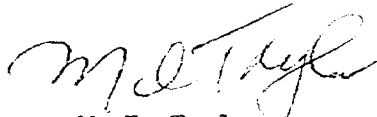
Gentlemen:

Thank you for your letter of May 10, 1965, which transmitted a copy of Commission Order No. R-2909, entered in Case No. 3241, which Order approved Gulf Oil Corporation's Central Drinkard Unit Waterflood Project.

Regarding the total calculated maximum allowable for the wells situated within the pilot waterflood area, it appears that you inadvertently neglected to multiply by the proportional (depth) factor for the Drinkard Pool which is 1.77. Upon making this correction, your calculated allowables as shown in Paragraph 3 of the aforementioned letter of 1,050 and 126 barrels per day would change to 1,859 and 223 barrels per day, respectively.

If our interpretation of Rule 701 is not correct, we would appreciate your clarification of this matter.

Yours very truly,


M. I. Taylor

CEM:ers

cc: New Mexico Oil Conservation Commission
Post Office Box 1980
Hobbs, New Mexico 88240



GOVERNOR
JACK M. CAMPBELL
CHAIRMAN

State of New Mexico
Oil Conservation Commission



LAND COMMISSIONER
GUYTON B. HAYS
MEMBER

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

P. O. BOX 2088
SANTA FE

July 13, 1965

Mr. Bill Kastler
Gulf Oil Corporation
Post Office Box 1938
Roswell, New Mexico

Re: Case No. 3241
Order No. R-2909-A
Applicant:

GULF OIL CORPORATION

Dear Sir:

Enclosed herewith are two copies of the above-referenced Commission order recently entered in the subject case.

Very truly yours,

A. L. Porter, Jr.
A. L. PORTER, Jr.
Secretary-Director

ir/

Carbon copy of order also sent to:

Hobbs OCC x

Artesia OCC

Aztec OCC

OTHER Mr. Frank Irby

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO

May 10, 1965

Mr. Bill Kastler
Gulf Oil Corporation
Post Office Box 1936
Roswell, New Mexico

RECEIVED MAILED

Date 6-16-65

Dear Sir:

Enclosed herewith is Commission Order No. R-2909, entered in Case No. 3241, approving the Gulf Oil Corporation Central Drinkard Unit Waterflood Project.

Injection is to be through the six authorized injection wells which shall be equipped with plastic-coated tubing and packers.

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 1050 barrels per day. This is assuming recompletion in the Drinkard of Gulf's McCormack No. 12 in Unit B of Section 32. Upon recompletion in the Drinkard of the Gulf well in Unit D of Section 28 and upon commitment of the Sinclair wells in Units K and N of Section 29, an additional 126 barrels could be assigned the project.

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

C
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OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO

-2-

Mr. Bill Kastler
Gulf Oil Corporation
Roswell, New Mexico

C 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.

O 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

P
Y ALP/DSH/ir
Enclosure

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

Oil Conservation Commission
Hobbs, New Mexico

- 2 -

June 30 Examiner Hearing

All of the aforementioned non-standard units are the result of deviations in the U. S. Public Lands Survey.

CASE 3241 (Reopened):

Application of Gulf Oil Corporation for an amendment of Order R-2909, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an amendment to Order R-2909 to delete the Pan American Turner Well No. 2 and the Gulf McCormack Well No. 13 located in Unit O of Section 29 and Unit A of Section 32, respectively, from its Central Drinkard Unit Pilot Waterflood Project, and to substitute therefor the Gulf Carson Well No. 4 and the Mobil Carson Well No. 7 located in Unit O of Section 28 and Unit C of Section 33, respectively, all in Township 21 South, Range 37 East, Drinkard Pool, Lea County, New Mexico.

DOCKET: EXAMINER HEARING - WEDNESDAY - JUNE 30, 1965

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 3112: (Reopened) (Continued from the June 9th examiner hearing)
In the matter of Case 3112 being reopened pursuant to the provisions of Order No. R-2824, which order authorized Gallup-Dakota commingling in the wellbore by means of a dual-flow downhole choke assembly in its Jicarilla 28 Well No. 1 located in Unit J of Section 28, Township 25 North, Range 4 West, Rio Arriba County, New Mexico. All interested parties may appear and show cause why the authority granted under this order should not be terminated.
- CASE 3269: Application of Shell Oil Company for an amendment to Order R-2182, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an amendment to the special pool rules for the Henshaw-Wolfcamp Pool, Eddy County, New Mexico, as promulgated by Order R-2182 and Order R-2182-B, to include a provision for a gas-oil ratio limitation of 6,000 to 1.
- CASE 3270: Application of Jake L. Hamon for the creation of a new gas pool and an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new pool for Morrow gas production for his Hamon State E-8913 Well No. 1, located at an unorthodox location 660 feet from the North and West lines of Section 20, Township 20 South, Range 36 East, Lea County, New Mexico. The N/2 of said Section 20 would be dedicated to the well.
- CASE 3271: Application of Shar-Alan Oil Company for the creation of a new pool, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a Gallup-Mesaverde Gas Pool for its Rosa Unit Well No. 49 located in Unit M of Section 27, Township 31 North, Range 4 West, Rio Arriba County, New Mexico, which well is perforated in the Gallup formation from 6895 feet to 7025 feet, and the Mesaverde formation from 6115 feet to 6275 feet.
- CASE 3272: Application of El Paso Natural Gas Company for several non-standard gas proration units, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of 51 non-standard gas proration units, all containing more than 320 acres, for the Basin-Dakota Gas Pool in the following sections:

TOWNSHIP 28 NORTH, RANGE 5 WEST
SECTIONS 7 through 13, 24 and 25,
and 33 through 36

TOWNSHIP 28 NORTH, RANGE 6 WEST
SECTIONS 7 through 12, 18 and 19,
and 30 through 34

TOWNSHIP 28 NORTH, RANGE 7 WEST
SECTIONS 7 through 12, 18 and 19,
and 30 through 36

Gulf Oil Corporation

ROSWELL PRODUCTION DISTRICT

W. B. Hopkins
DISTRICT MANAGER
M. I. Taylor
DISTRICT PRODUCTION
MANAGER
F. O. Mortlock
DISTRICT EXPLORATION
MANAGER
H. A. Rankin
DISTRICT SERVICES MANAGER

June 22, 1965

P. O. Drawer 1938
Roswell, New Mexico

State Engineer Office
State Capitol
Santa Fe, New Mexico 87501

Attention: Mr. Frank E. Irby

Re: Application by Gulf Oil Corporation
to Reopen Case No. 3241 to Amend
Order No. R-2909

Gentlemen:

In your letter dated June 21, 1965, you requested that Gulf advise you concerning the top of the cement behind the 5-inch casing in Mobil's Carson No. 7. Mobil informs us that this cement top is at 2960 feet below the surface as determined from a temperature survey.

Yours very truly,



M. I. Taylor

DGB:ers

cc: Oil Conservation Commission
State of New Mexico
Post Office Box 2088
Santa Fe, New Mexico 87501

New Mexico Oil Conservation Commission
Post Office Box 1980
Hobbs, New Mexico 88240



June 21, 1965

Gulf Oil Corporation
P. O. Drawer 1938
Roswell, N. M. 88201

Attn. Mr. M. I. Taylor

Dear Mr. Taylor:

Reference is made to your application to the Oil Conservation Commission to delete two injection wells from Central Drinkard Unit Waterflood Project and substitute two different injection wells, which has been set for hearing on Wednesday, June 30, 1965.

I would appreciate being advised before the hearing as to where the top of cement on the 5-inch casing stands with reference to land surface datum on the Mobil E. O. Carson No. 7 well and what method was used to determine the top of the cement.

FEI/ma
cc-A. L. Porter, Jr.
F. H. Hennighausen

Yours truly,

S. E. Reynolds
State Engineer

By:
Frank E. Irby
Chief
Water Rights Div.

Gulf Oil Corporation

ROSWELL PRODUCTION DISTRICT

W. B. Hopkins
DISTRICT MANAGER
M. J. Taylor
DISTRICT PRODUCTION
MANAGER
F. O. Mortlock
DISTRICT EXPLORATION
MANAGER
H. A. Rankin
DISTRICT SERVICES MANAGER

June 16, 1965

P. O. Drawer 1938
Roswell, New Mexico 88201

Secretary Director
New Mexico Oil Conservation Commission
Post Office Box 2088
Santa Fe, New Mexico 87501

Re: Application of Gulf Oil Corporation to Reopen Case
No. 3241 to Amend Order No. R-2909, to Delete Two
Injection Wells from the Central Drinkard Unit Water-
flood Project and Substitute Two Different Injection
Wells

Dear Sir:

Gulf Oil Corporation, Operator of the Central Drinkard Unit in
Township 21 South, Range 37 East, Lea County, New Mexico, desires to change
the six-injection-well pilot waterflood project as approved in Order
No. R-2909. Gulf, therefore, requests that Case No. 3241 be reopened for
this purpose and in support of this application states the following:

- (1) Two of the six injection wells originally included in the six-well-
pilot project in T-21-S, R-37-E, will no longer be used. These wells
are:

Operator - Lease	Well	LOCATION	
		Unit	Section
Pan American W. H. Turner	2	O	29
Gulf W. T. McCormack	13	A	32

- (2) Two other wells will be substituted as injection wells in the project.
These wells are:

Operator - Lease	Well	LOCATION	
		Unit	Section
Gulf J. N. Carson (NCT-A)	4	O	28
Mobil E. O. Carson	7	C	33

- (3) Gulf plans to inject approximately 750 BWPD into the Drinkard forma-
tion in each injection well.
- (4) Gulf anticipates no other changes in the planned operation of the pilot
waterflood project.



Secretary Director

Page 2

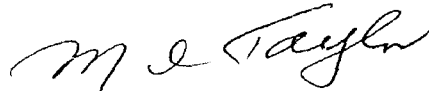
June 16, 1965

- (5) The following items are enclosed with this application.
- (a) Plat of the Central Drinkard Unit showing the revised pilot project.
 - (b) Schematic diagrams of the two new injection wells showing completion intervals and casing programs.
 - (c) Copies of the well logs on Gulf's Carson (NCT-A) No. 4 and Mobil's Carson No. 14, twin to their No. 7.
- (6) A copy of this application complete with all enclosures has been sent to the State Engineer Office.

It is requested that this matter be set for hearing before an examiner.

Respectfully submitted,

GULF OIL CORPORATION



M. I. Taylor

Enclosures
DGB:dcn

cc: New Mexico Oil Conservation Commission
Post Office Box 1980
Hobbs, New Mexico 88240

State Engineer Office
Post Office Box 1079
Santa Fe, New Mexico 87501

State Land Office
Post Office Box 1148
Santa Fe, New Mexico 87501
Attention: Mrs. Marian Rhea

All Working Interest Owners
(Less Exhibits)

DOCKET: EXAMINER HEARING - WEDNESDAY - JUNE 30, 1965

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 3112: (Reopened) (Continued from the June 9th examiner hearing)
In the matter of Case 3112 being reopened pursuant to the pro-
visions of Order No. R-2824, which order authorized Gallup-Dakota
commingling in the wellbore by means of a dual-flow downhole
choke assembly in its Jicarilla 28 Well No. 1 located in Unit J
of Section 28, Township 25 North, Range 4 West, Rio Arriba County,
New Mexico. All interested parties may appear and show cause
why the authority granted under this order should not be terminated.

CASE 3269: Application of Shell Oil Company for an amendment to Order R-2182,
Eddy County, New Mexico. Applicant, in the above-styled cause,
seeks an amendment to the special pool rules for the Henschaw
Wolfcamp Pool, Eddy County, New Mexico, as promulgated by Order
R-2182 and Order R-2182-B, to include a provision for a gas-oil
ratio limitation of 6,000 to 1.

CASE 3270: Application of Jake L. Hamon for the creation of a new gas pool
and an unorthodox gas well location, Lea County, New Mexico.
Applicant, in the above-styled cause, seeks the creation of a
new pool for Morrow gas production for his Hamon State E-8913
Well No. 1, located at an unorthodox location 660 feet from the
North and West lines of Section 20, Township 20 South, Range 36
East, Lea County, New Mexico. The N/2 of said Section 20 would
be dedicated to the well.

CASE 3271: Application of Shar-Alan Oil Company for the creation of a new
pool, Rio Arriba County, New Mexico. Applicant, in the above-
styled cause, seeks the creation of a Gallup-Mesaverde Gas Pool
for its Rosa Unit Well No. 49 located in Unit M of Section 27,
Township 31 North, Range 4 West, Rio Arriba County, New Mexico,
which well is perforated in the Gallup formation from 6895 feet
to 7025 feet, and the Mesaverde formation from 6115 feet to 6275
feet.

CASE 3272: Application of El Paso Natural Gas Company for several non-standard
gas proration units, Rio Arriba County, New Mexico. Applicant,
in the above-styled cause, seeks the establishment of 51 non-
standard gas proration units, all containing more than 320 acres,
for the Basin-Dakota Gas Pool in the following sections:

TOWNSHIP 28 NORTH, RANGE 5 WEST
SECTIONS 7 through 13, 24 and 25,
and 33 through 36

TOWNSHIP 28 NORTH, RANGE 6 WEST
SECTIONS 7 through 12, 18 and 19,
and 30 through 34

TOWNSHIP 28 NORTH, RANGE 7 WEST
SECTIONS 7 through 12, 18 and 19,
and 30 through 36

- 2 -

June 30 Examiner Hearing

All of the aforementioned non-standard units are the result of deviations in the U. S. Public Lands Survey.

CASE 3241 (Reopened):

Application of Gulf Oil Corporation for an amendment of Order R-2909, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an amendment to Order R-2909 to delete the Pan American Turner Well No. 2 and the Gulf McCormack Well No. 13 located in Unit O of Section 29 and Unit A of Section 32, respectively, from its Central Drinkard Unit Pilot Waterflood Project, and to substitute therefor the Gulf Carson Well No. 4 and the Mobil Carson Well No. 7 located in Unit C of Section 28 and Unit C of Section 33, respectively, all in Township 21 South, Range 37 East, Drinkard Pool, Lea County, New Mexico.

Gulf Oil Corporation

ROSWELL PRODUCTION DISTRICT

W. B. Hopkins
DISTRICT MANAGER
M. I. Taylor
DISTRICT PRODUCTION
MANAGER
F. O. Mortlock
DISTRICT EXPLORATION
MANAGER
H. A. Rankin
DISTRICT SERVICES MANAGER

May 5, 1965

P. O. Drawer 1938
Roswell, New Mexico 88201

Oil Conservation Commission
Post Office Box 871
Santa Fe, New Mexico 87501

Attention: Mr. Dan Nutter

Re: Central Drinkard Unit Hearing, Case No. 3241

Gentlemen:

Confirming telephone conversation this date with R. H. Fluker, this is to advise that Sinclair Oil & Gas Company has elected not to join the subject Unit at this time. See copy of Sinclair's letter attached.

Since Sinclair is not joining the Unit, it will be necessary to reduce the number of proration units used in determining allowable for the project area from 27 to 25.

If additional information is needed, please advise.

Yours very truly,


W. B. Hopkins

Attachment
RHF:dcm

DOCKET MAILED

Date 6-1-65

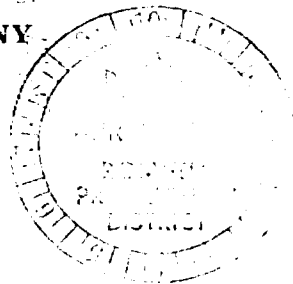




SINCLAIR OIL & GAS COMPANY

P. O. Box 1470
Midland, Texas 79701

April 26, 1965



JHH
CEM *CEM*
FWM
JCC
VMT *VMT*
DGB
FILE

BBB

Gulf Oil Corporation
P. O. Drawer 1938
Roswell, New Mexico

Attention: Mr. M. T. Taylor

Dear Sir:

With reference to your wire of April 2, 1965 and Sinclair's letter of April 5, 1965, this is to advise that Sinclair Oil & Gas Company will not execute the Ratifications of the Agreements for the proposed Central Drinkard Unit, Lea County, New Mexico.

Sinclair is desirous of contributing its properties to this unit; however, we will suffer a considerable loss in current income under the Phase I participation. Sinclair requests that its leases be negotiated into the unit under the provisions of Article 12. We suggest a Phase I participation equal to our current percent of oil production with Phase II being the same as offered under the present formula.

Yours very truly,

R. F. Sawyer
Regional Manager
Production Department

RFS:RMA:dp



STATE OF NEW MEXICO

STATE ENGINEER OFFICE

SANTA FE

S. E. REYNOLDS
STATE ENGINEER

April 22, 1965

ADDRESS CORRESPONDENCE TO:
STATE CAPITOL
SANTA FE, N. M.

Case 3240

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

Dear Mr. Porter:

Reference is made to the application of Gulf Oil Corporation for approval of their Central Drinkard Unit Agreement providing for secondary recovery operations in a portion of the Drinkard Pool, which was submitted March 23, 1965. The application seeks permission to convert the following 6 wells to water injection:

Gulf Eunice King No. 4
Marathon W. H. Turner No. 1
Gulf J. N. Carson (NCT-A) No. 2
Pan American W. H. Turner No. 2
Gulf W. T. McCormack No. 13
Mobil E. O. Carson No. 3

After reviewing the application and discussing it with Mr. Vance Hendricks, Engineer for Gulf, it appears that the proposal does not constitute a threat of contamination to the fresh waters which may exist in the area, provided the equipment and mechanical operation in the Gulf-WT-McCormack No. 13 are adequate to deliver all injected fluids into the proposed injection zone below the Baker Model D packer, which is to be set at depth 6463 feet.


I understand from my telephone conversation with Mr. Hendricks, that this well will be completed as a dual in such a manner that gas can be produced from the Tubb formation and water injected through the tubing into the Drinkard.

This office offers no objection to the granting of the application if the above proviso is incorporated as a condition of the approval.

Yours truly,

S. E. Reynolds
State Engineer

By:


Frank E. Irby
Chief
Water Rights Div.

FEI/ma
cc-Gulf Oil Corp.
F. H. Hennighausen

Examiner Hearing - April 28, 1965

- CASE 3243: Application of Monsanto Company for special pool rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the Dagger Draw-Strawn Gas Pool and the Dagger Draw-Morrow Gas Pool, Eddy County, New Mexico, including a provision for 640-acre gas well spacing units.
- CASE 3003: In the matter of Case No. 3003 being reopened pursuant to the provisions of Order No. R-2685, which order established temporary 80-acre proration units for the Tobac-Pennsylvanian Pool, Chaves 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 40-acre spacing units.
- CASE 2997: In the matter of Case No. 2997 being reopened pursuant to the provisions of Order No. R-2677, which order established 80-acre spacing units for the Vacuum-Lower 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 40-acre spacing units.
- CASE 3244: Application of James E. Logan for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Rain Spring Unit Area comprising 10,542.00 acres, more or less, of State, Federal and Fee lands in Townships 22 and 23 South, Ranges 24 and 25 East, Eddy County, New Mexico.

DOCKET: EXAMINER HEARING - WEDNESDAY - APRIL 28, 1965

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 3217: (Continued from the March 10, 1965 examiner hearing)
In the matter of the hearing called by the Oil Conservation
Commission upon its own motion to permit S. S. Sutton, dba
Eddy Oil Company and all other interested parties to show
cause why the Eddy Oil Company Stanolind-State Wells Nos. 1
and 2, located in Units G and J, respectively, of Section 36,
Township 19 South, Range 30 East, Eddy County, New Mexico,
should not be plugged in accordance with a Commission approved
plugging program.

CASE 3240: Application of Gulf Oil Corporation for a unit agreement,
Lea County, New Mexico. Applicant, in the above-styled
cause, seeks approval of the Central Drinkard Unit Area
comprising 2,600 acres, more or less, of State and Fee lands
in Township 21 South, Range 37 East, Lea County, New Mexico.

CASE 3241: Application of Gulf Oil Corporation for a waterflood project,
Lea County, New Mexico. Applicant, in the above-styled cause,
seeks authority to institute a waterflood project in the
Drinkard Pool, Lea County, New Mexico, in its Central Drinkard
Unit Area by the injection of water into the Drinkard formation
through six wells in Sections 28, 29, and 32, Township 21 South,
Range 37 East.

CASE 2676: In the matter of the application of Gulf Oil Corporation to
(Reopened) reopen Case No. 2676 to reconsider applicant's request that a
full 80-acre proration unit comprising the S/2 NW/4 of Section
23, Township 24 South, Range 37 East, Fowler Ellenburger Pool,
Lea County, New Mexico, be approved for applicant's Lillie
Well No. 3 located 2310 feet from the North line and 330 feet
from the West line of said Section 23.

CASE 3242: Application of Austral Oil Company Incorporated, for an un-
orthodox location, San Juan County, New Mexico. Applicant,
in the above-styled cause, seeks an exception to the well
location requirements for the Blanco-Mesaverde Gas Pool for its
Bunny et al Well No. 1 at an unorthodox location 1040 feet
from the South line and 1190 feet from the East line of Section
10, Township 27 North, Range 9 West, San Juan County, New
Mexico.

SCHEMATIC DIAGRAM
PROPOSED WATER INJECTION WELL

CENTRAL DRINKARD UNIT
Lea County, New Mexico

Gulf J. N. Carson (NOT-A) No. 4
Unit 0 Sec. 28-21S-37E

13-3/8" OD 48# Csg.
Cmtd. w/300 Sx. Circ.

299'

Casing-Tubing Annulus
Will Be Loaded With
Inhibited Water

9-5/8" OD 36# H-40
Csg. Cmtd. w/1300 Sx.
TS Top @ 540'

2850'

2-3/8" OD 4.70# EUE 8 RT J-55
Tubing Plastic Coated Internally

Blinbry Gas Perfs.
5475' - 5630'
(Squeeze Cemented)

Baker Model "R" (or Equivalent)
Retrievable HW Type Inj. Pkr.
@ Approx. 6480'

7" OD 23# J-55 & N-80
Csg. Cmtd. w/700 Sx.
TS Top @ 1280'

6516'

DRINKARD ZONE

6-1/4" Open Hole
6516' - 6615'

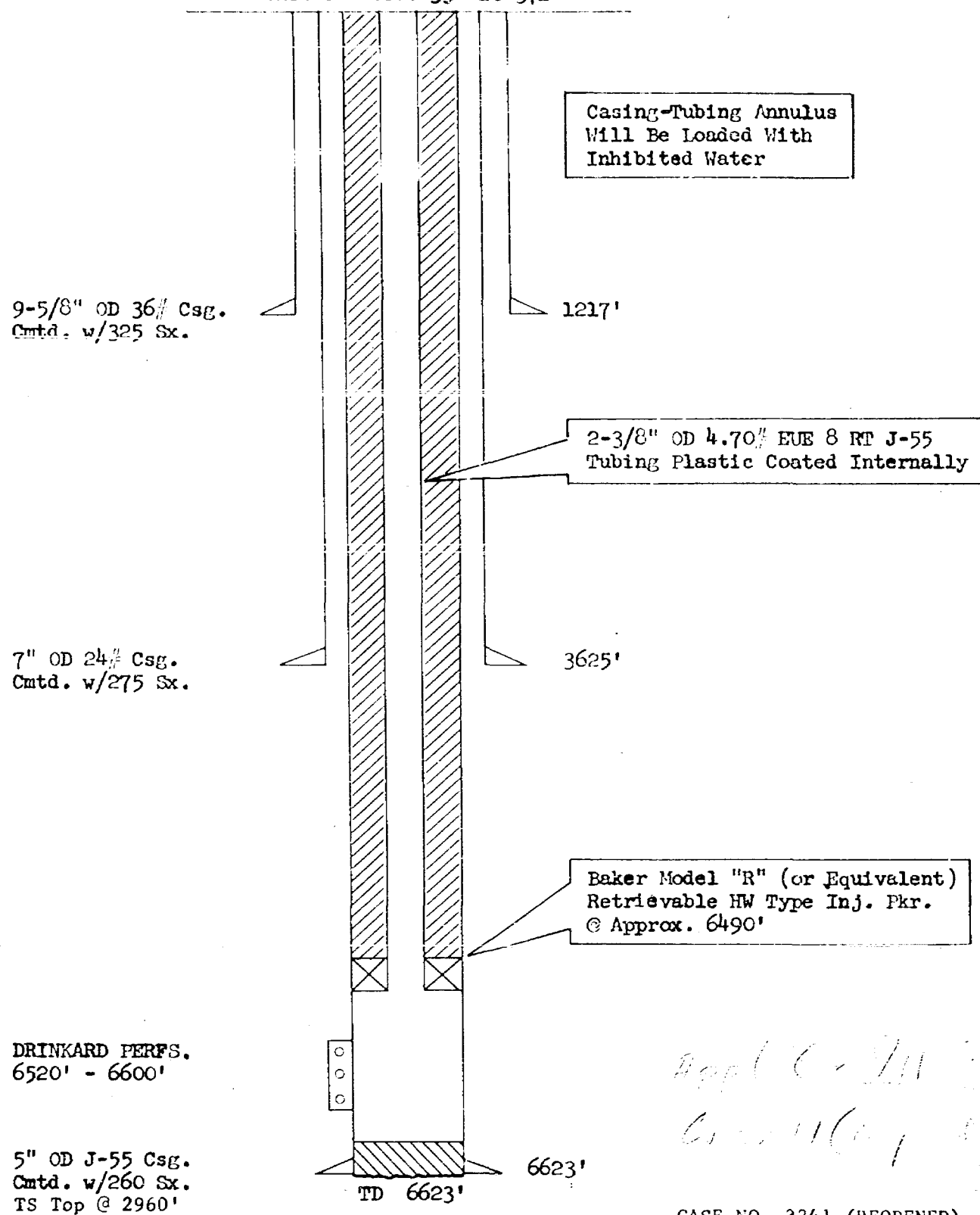
TD 6615'

CASE NO. 3241 (REOPENED)
EXHIBIT NO. VII-A

SCHEMATIC DIAGRAM
PROPOSED WATER INJECTION WELL

CENTRAL DRINKARD UNIT
Lea County, New Mexico

Mobil E. O. Carson No. 7
Unit C Sec. 33-21S-37E



CASE NO. 3241 (REOPENED)
EXHIBIT NO. VII-B