

CASF 4477: Application of GULF
FOR A WATERFLOOD EXPALSION,
LEA COUNTY, NEW MEXICO.

Case. Number.

4477

Application,
Transcripts.

Sm all Exhibts.

ETC.

dearnley-meier reporting service, inc.

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

209 SUMMIT BLVD. • P.O. BOX 1092 • PHONE 243-4491 • ALBUQUERQUE, NEW MEXICO

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
January 6, 1971

EXAMINER HEARING

IN THE MATTER OF:

Application of Gulf Oil Corporation)
for a waterflood expansion, Lea County,)
New Mexico. Applicant, in the above-)
styled cause, seeks authority to ex-)
pand its northwest Eumont Unit Water-)
flood project, Eumont Pool, by the con-)
version to water injection of 13 addi-)
tional wells in Sections 26, 27, 33,)
and 34, Township 19 south, Range 36,)
East, Lea County, New Mexico.)

Case No.
4477

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

dearnley-meier reporting service

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS
 209 SIMMS BLDG. • P.O. BOX 1082 • PHONE 243-8691 • ALBUQUERQUE, NEW MEXICO 87103
 FIRST NATIONAL BANK BLDG. EAST • ALBUQUERQUE, NEW MEXICO 87108

I N D E XPageDON BILBREY

DIRECT EXAMINATION by Mr. Kastler

3

CROSS EXAMINATION by Mr. Nutter

14

E X H I B I T SMarkedOffered and
AdmittedApplicant's Exhibits Nos. 1
through 8

3

3

dearby-meier reporting

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS
 209 SIMMS BLDG., P.O. BOX 1092, PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO 87103
 FIRST NATIONAL BANK BLDG. EAST • ALBUQUERQUE, NEW MEXICO 87106

1 MR. NUTTER: The next case will be Case No. 4477.

2 MR. HATCH: Case No. 4477, the Applicant is the
 3 Gulf Oil Corporation, for a waterflood expansion in Lea
 4 County, New Mexico.

5 MR. KASTLER: I am William V. Kastler, and I
 6 am employed by the Gulf Oil Company, and I am appearing
 7 on behalf of Gulf, and our witness will be Don Bilbrey.

8 DON BILBREY

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

11 DIRECT EXAMINATION

12 MR. KASTLER: Here is a copy of the questions
 13 and answers, and I have three copies of all of the
 14 exhibits which are numbered 1 through 8, with the ex-
 15 ception of Exhibit No. 5 and Exhibit No. 7, which are
 16 logs, of which, we have only one copy, and I would like
 17 to move at this time that all of the Exhibits be stamped
 18 and marked on the Exhibits, themselves.

19 (Whereupon, Applicant's Exhibits
 20 Nos. 1 through 8 were marked for
 21 identification.)

22 BY MR. KASTLER:

23 Q Mr. Bilbrey, please state your name and by
 24 whom you are employed, and in what position?

25 A My name is Don G. Bilbrey, and I work for Gulf

dearnley-meier reporting

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS
 239 SIMMS BLDG. • P.O. BOX 1092 • PHONE 249-6691 • ALBUQUERQUE, NEW MEXICO 87103
 FIRST NATIONAL BANK BLDG. EAST • ALBUQUERQUE, NEW MEXICO 87108

1 in Roswell, New Mexico. I am employed as a senior petro-
 2 leum engineer.

3 Q As a senior petroleum engineer, have you prev-
 4 iously appeared before the New Mexico Oil Conservation
 5 Commission and qualified as an expert and given testi-
 6 mony?

7 A Yes, I have.

8 Q Are you familiar with Gulf's application in
 9 Case No. 4477?

10 A Yes, I am.

11 What is Gulf requesting?

12 In brief, Gulf, who is a Unit Operator, is
 13 seeking permission to expand the Northwest Eumont Unit
 14 Waterflood Project to include the south half of the Unit
 15 Area.

16 Q When was the north half put under flood?

17 A The northwest unit was authorized by the Com-
 18 mission under Order No. R-2657, dated March 4th, 1964,
 19 the Waterflood Project, which was initially confined to
 20 the north part of the Unit, was authorized under Com-
 21 mission Order No. R-2659, also dated March 4th, 1964.
 22 The Unit became effective April 1, 1964 and initial
 23 water injection occurred January 7th, 1965.

24 Q What pattern was used?

25 A An 80-Acre, 5-Spot Pattern. The approved

dearnley-meier reporting

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS
 209 SIMMS BLDG., P.O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, N.M. 87103
 FIRST NATIONAL BANK BLDG. EAST • ALBUQUERQUE, N.M. 87108

1 injection wells are circled in blue on the plat marked
 2 "Exhibit No. L," along with W.I.W. No. 163 on the south
 3 end of the Unit. This injection well was approved adminis-
 4 tratively by the Commission on January 2nd, 1968.

5 Q That was No. 163?

6 A That was 163, the south line there, and there are
 7 15 wells circled as the original 15 authorized for this
 8 Waterflood Project.

9 Q What was the water supply?

10 A A Gulf well, B.V. Culp, NCT-A, located in Section
 11 19-19 South-37 East, about 2 miles east of the Unit, was
 12 re-completed in 1964 as a San Andres Water Supply Well.
 13 This well, along with the produced water, is the current
 14 water supply for the Northwest Eumont Unit Waterflood
 15 Project. The Culp NCT-A, No. 8, alone is capable of
 16 supplying all the injection water necessary for the
 17 expanded project.

18 Q Why was only half the Unit put under flood
 19 initially?

20 A At the time of utilization there was some
 21 question as to the floodability of the Queen formation
 22 in this area. It was therefore decided to "pilot" the
 23 Waterflood Project by putting only half the Unit Area
 24 under flood at the time.

25 Q How has the flood project performed to date?

dearnley-meier reporting

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS
 209 SIMMS BLDG., P.O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO 87103
 FIRST NATIONAL BANK BLDG. EAST • ALBUQUERQUE, NEW MEXICO 87103

1 Q How has the flood project performed to date?

2 A Well, I am sorry to say, not quite as well as
 3 we had hoped, but oil production has been increased, as
 4 shown on the performance curve for the flood area, which
 5 is marked, "Exhibit No. 2." Additional reserves have been
 6 realized as a result of the project and the initial water-
 7 flood development costs have been paid out. The project
 8 will give the Working Interest Owners a moderate but
 9 profitable return on their investment.

10 Q Do you feel expansion of the project is now
 11 justified?

12 A Yes. I would say that after observing the
 13 flood for six years, we have concluded that expansion
 14 costs can be recovered with a reasonable return on
 15 investment, assuming the south half performs as well
 16 as the north half or as well as Continental's Reed-
 17 Sanderson Flood, which adjoins the Northwest Eumont
 18 Unit on the south. Expansion investment costs will not
 19 be too great since the injection plant and water-supply
 20 costs, two major investment items, have already been
 21 absorbed by the Working Interest Owners with the instal-
 22 lation of the waterflood in the north half of the Unit.

23 Q Has Working-Interest-Owner approval for this
 24 expansion been obtained?

25 A Yes, approval has been obtained for the conversion

dearnley-meier reporting company

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS
 200 SIMMS BLDG., P.O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO 87103
 FIRST NATIONAL BANK BLDG., EAST • ALBUQUERQUE, NEW MEXICO 87108

1 of 13 water injection wells covered in our application for
 2 this hearing.

3 Q Will you, now, give the Commission the major
 4 points of Gulf's proposal to expand the waterflood pro-
 5 ject?

6 A We will expand waterflood operations to the south
 7 half to the Unit in the same 80-acre, 5-spot pattern that
 8 is now being used in the north part of the Unit. The in-
 9 jection wells are circled in yellow on Exhibit No. 1. This
 10 pattern will also tie-in with Continental's pattern in
 11 their Reed-Sanderson Unit, which borders the Northwest
 12 Eumont Unit on the south. Thirteen wells will be con-
 13 verted to water injection status, and all will be equipped
 14 as shown on Exhibit No. 3, which is a diagramatic sketch
 15 of a typical injection well. Exhibit No. 4 is a tabulation
 16 giving pertinent completion information on each of the 13
 17 water injection wells covered in our application. Little
 18 or no well work will be performed on wells in the expansion
 19 area, as this proved to be of little benefit to the north
 20 half of the Unit. Injection and production will, therefore,
 21 be into and from zones currently open to the well bore.

22 We will inject produced water and San Adres water
 23 from the unit water supply well into the Queen formation
 24 at the depth of approximately 3900 feet. The initial in-
 25 jection rate will be about 350 BWPD per injection well,

dearnley-meier reporting

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS
 209 SIMMS BLDG. • P.O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO 87103
 FIRST NATIONAL BANK BLDG. EAST • ALBUQUERQUE, NEW MEXICO 87108

1 and the maximum injection pressure will be 2,000 psi at
 2 the well head.

3 Exhibit No. 5 consists of small-scale logs on
 4 12 of 13 wells covered in our application. A log on Well
 5 No. 139 is not available.

6 Q Exhibit No. 5 is a group of logs for which you
 7 only have one copy, is that correct?

8 A That is correct, one log for each proposed
 9 injection well.

10 Q Except which well number?

11 A No. 139, we have no log available for that.

12 Q Thank you. My next question is: Have Charm
 13 Oil Company and Resler and Sheldon, operators of 280-
 14 acre tracts, partially or entirely surrounded by the
 15 Northwest Eumont Unit, been approached about cooperating
 16 with this waterflood expansion?

17 A Mr. Vilas P. Sheldon, of Artesia, was notified
 18 of our plans to expand the waterflood project. He operates
 19 the two tracts mentioned under the name of Resler and
 20 Sheldon and Charm Oil Company. These leases are the
 21 cross-hatched areas on Exhibit No. 1. Mr. Sheldon said
 22 he had no objection to our expanding the flood to offset
 23 the tracts he operates, but that for various reasons he
 24 would not be able to cooperate with us even though we offer-
 25 ed to sell pressured water to him. Mr. Sheldon indicated

dearnley-meier reporting

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS
 209 SIMMS BLDG., P.O. BOX 1092, PHONE 243-6691, ALBUQUERQUE, NEW MEXICO 87103
 FIRST NATIONAL BANK BLDG. EAST ALBUQUERQUE, NEW MEXICO 87108

1 that cooperative injection might be possible at a later
 2 date on at least one of the tracts.

3 Q In view of the lack of cooperation, does Gulf
 4 plan to offset these two tracts with injection wells?

5 A Yes. The location of these two tracts, as shown
 6 on the platt, makes it virtually impossible to adequately
 7 flood the south half of the Unit without offsetting them,
 8 since 8 of the 13 injection wells either directly or diago-
 9 nally offset the Resler and Sheldon and Charm tracts.

10 Q What is the significance of this red triangle
 11 in the northeast corner of Section 34 of 19 South, Range
 12 36 East, as shown on Exhibit No. 1?

13 A This is Northwest Eumont Unit Well No. 153, which
 14 has been TA in the Eumont Pool since April, 1967. In pre-
 15 liminary discussion with the Working Interest Owners con-
 16 cerning expansion of the waterflood project, it was recom-
 17 mended by Gulf, and tentatively agreed to by the Working
 18 Interest Owners, that all wells in the south half of the
 19 Unit on the injection pattern should be converted to water
 20 injection. Thus, the Northwest Eumont Unit Well, No. 153,
 21 was to have been included as an injection well. However,
 22 in our design work for expansion of the flood, and in our
 23 application to the Commission calling for this hearing, Gulf,
 24 through an oversight, omitted the No. 153, a proposed
 25 water injection well. To rectify this mistake, we are

dearnley-meier reporting

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS
 209 SIMMS BLDG., P.O. BOX 1092, PHONE 243-6891, ALBUQUERQUE, NEW MEXICO 87109
 FIRST NATIONAL BANK BLDG. EAST ALBUQUERQUE, NEW MEXICO 87108

1 now asking the Commission to amend our application and
 2 improve the conversion of this well, also. This would
 3 make a total of 14 water injection wells in the expan-
 4 sion area, instead of the 13 as originally requested.

5 Q Do you believe, then, that the No. 153 should
 6 be included as a water injection well in this expansion?

7 A Yes. As previously mentioned, the well is
 8 temporarily abandoned now; however, it is perforated
 9 in the flood interval and can be readily converted to
 10 water injection status. In addition, this will complete
 11 an 80-acre 5-Spot, giving a 4-way push to Unit Well No. 152.

12 Q Would Well No. 153 be equipped similarly to the
 13 other 13 proposed water injection wells?

14 A Yes. Exhibit No. 6 is a schematic diagram of
 15 Well No. 153 equipped as a water injection well. It
 16 shows the casing strings, cement used, Queen perforations
 17 and proposed tubing and packer setting depths.

18 The well would be connected to the expanded
 19 injection system along with the 13 wells covered in our
 20 letter of application to the Oil Conservation Commission.
 21 The initial injection rate anticipated for the well would be
 22 about 350 GWPD, the same as the other injection wells.
 23 Exhibit No. 7 is a small scale gamma ray-neutron log for
 24 the Northwest Eumont Unit Well No. 153.

25 Q Is that the second log of which you have only one

dearnley-meier reporting

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS
 209 CHMMS BLDG. • P.O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO 87103
 FIRST NATIONAL BANK BLDG. EAST • ALBUQUERQUE, NEW MEXICO 87108

1 copy?

2 A Yes, that is correct.

3 Q Have the Working Interest Owners been notified
 4 concerning the conversion of Well No. 153?

5 A Yes, they have been. When we discovered that
 6 Well No. 153 had been overlooked as a possible water
 7 injection well, we wrote the Working Interest Owners
 8 explaining our error, and asked them to approve the
 9 conversion of the well by approving an AFE to cover
 10 the cost to do the work. Our letter with the AFE
 11 didn't go out until December 24th, 1970, and we have
 12 not yet received sufficient Working-Interest-Owner
 13 approval to convert the well; however, we believe
 14 the AFE will be approved. Therefore, we are seeking
 15 the Commission's approval at this time for conversion
 16 of Well No. 153, along with the 13 included in our
 17 application, so that work can be commenced as soon
 18 as possible after Working-Interest-Owner approval is
 19 obtained.

20 Q Have offset operators to Well No. 153 been
 21 informed of your plans to convert the well to water
 22 injection?

23 A Yes, they have. As shown on the plat, Exhibit
 24 No. 1, there are only three operators offsetting this loca-
 25 tion. We sent letters to Amerada and Continental, both of

dearnley-meier reporting

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS
 209 SIMMS BLDG., P.O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO 87103
 FIRST NATIONAL BANK BLDG. EAST • ALBUQUERQUE, NEW MEXICO 87108

1 whom are Working Interest Owners in the Northwest Eumont
 2 Area, informing them of our plans to convert 153 to water
 3 injection. These letters were mailed December 24th, 1970,
 4 and in them we asked for waivers if they had no objection
 5 to the conversion. A copy of the letter and attached
 6 waiver are marked as Exhibit No. 8. Gulf is the other
 7 offsetting operator to the south, and we certainly have
 8 no objection to the diversion.

9 Q To the best of your knowledge and information,
 10 and believe, at this time, have either Amerada or Contin-
 11 ental returned the waiver?

12 A Gulf has not received any executed waivers from
 13 either company and, however, I talked to representatives
 14 of both companies by telephone on Monday afternoon, January
 15 4th, and I was told that neither Amerada nor Continental
 16 had any objection to our converting Well No. 153 to water
 17 injection. Both parties indicated their waiver had been
 18 either mailed or would be in the mail within a day or two.
 19 The Commission, as well as Gulf, should receive copies of
 20 both waivers very soon.

21 Q Would you briefly summarize Gulf's request in
 22 this case?

23 A Gulf, as Unit operator, seeks permission from
 24 the Commission to expand waterflood operations in the
 25 Northwest Eumont Unit to include the south half of the

dearnley-meier reporting

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS
 209 SIMMS BLDG., P.O. BOX 1092 • PH. NE 243-6691 • ALBUQUERQUE, NEW MEXICO 87103
 FIRST NATIONAL BANK BLDG. EAST ALBUQUERQUE, NEW MEXICO 87108

Unit. In this expansion, 13 wells described in our application would be converted to water injection along with the 14th well, the Northwest Eumont Unit No. 153, which was inadvertently omitted from the application. Working-Interest-Owner approval has been obtained for expansion of the project, and conversion of 13 producing wells to injection status. Gulf is now awaiting approval from the Working Interest Owners to convert Well No. 153 to injection status also. We believe expansion of the flood project is economically justified, and will result in increased oil recovery with a reasonable return on investment for the Working Interest Owners.

Q This application, in your opinion, then, is in the interest of conservation and the prevention of waste?

A Yes, it is.

Q Assuming this expansion is authorized, what would be the maximum project allowable?

A If these 14 new injection wells, including Well No. 153, are approved and placed on active injection along with the 16 previously authorized, the maximum project allowable under Rule 701-E-3 would be the product of 65 proration units times the basic-area-allowable factor in effect at the time for wells less than 5,000 feet in depth. The 65 proration units in the expanded project area result from a total of 30 injection wells and 35

dearnley-meier reporting

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS
 200 SIMMS BLDG. • P.O. BOX 1092 • PH. NE 243-6691 • ALBUQUERQUE, NEW MEXICO 87103
 FIRST NATIONAL BANK BLDG. EAST ALBUQUERQUE, NEW MEXICO 87108

1 producing wells, which directly or diagonally offset
 2 the injection wells.

3 Q Now, Mr. Bilbrey, were Exhibits Nos. 1 through
 4 7 prepared by you under your direction or under your
 5 supervision?

6 A Yes, they were.

7 Q Is Exhibit No. 8 from a copy of a letter which
 8 Gulf sent the offset operator, offsetting this maverick
 9 well, No. 153?

10 A That is correct.

11 Q Which was inadvertently omitted from the
 12 Gulf advertisement?

13 A That is right.

14 Q And application?

15 A Yes.

16 Q And this was discovered by oral application
 17 to the Commission?

18 A That is true.

19 MR. KASTLER: I move at this time that Exhibits
 20 No. 1 through 8 be introduced in evidence.

21 MR. NUTTER: Exhibits 1 through 8 will be ad-
 22 mitted into evidence.

23 (Whereupon, a discussion was held
 24 off the record.)

25 CROSS EXAMINATION

dearnley-meier reporting

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS
209 SIMMS BLDG., P.O. BOX 1092, PHONE 243-6691, ALBUQUERQUE, NEW MEXICO 87103
FIRST NATIONAL BANK BLDG., EAST ALBUQUERQUE, NEW MEXICO 87108

1 BY MR. NUTTER:

2 Q Mr. Bilbrey, with respect to Well No. 153, as
3 I interpret it on Exhibit No. 1, Amerada-Hess owns the
4 Northwest quarter of Section 39, is that correct?

5 A That is correct.

6 Q That would be the offset operator to the east?

7 A That is correct.

8 Q Continental owns the lease to the west half
9 of Section 26?

10 A That is correct.

11 Q Their unit operations are to the northwest and
12 the southwest, is that correct?

13 A That is correct.

14 Q The 40 acres directly south, Well No. 153, is
15 part of the lease which is in the unit?

16 A Right.

17 Q So the only offset operator other than Gulf,
18 that would be Continental or Amerada?

19 A That is correct.

20 Q Now, with respect to Exhibit No. 4, Mr. Bilbrey,
21 are Wells No. 39 and 49, has any cement been circulated
22 in those?

23 A I can tell you that our records in the Hobb's
24 office are delinquent in that respect. The information
25 is just not available in our files.

dearnley-meier reporting

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS
209 SIMMS BLDG. • P.O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO 87103
FIRST NATIONAL BANK BLDG. EAST ALBUQUERQUE, NEW MEXICO 87108

1 Q Well, Well No. 139 was cemented with 255 sacks
2 and Well No. 149 was cemented with 250 sacks. Would you
3 be able to make calculations when you return to your office,
4 and advise us, please?

5 A Would by phone be sufficient?

6 Q I would rather have something in writing for the
7 record.

8 MR. NUTTER: Is there any further discussion with
9 Mr. Bilbrey? Mr. Bilbrey may be excused.

10 Do you have any other witnesses, Mr. Kastler?

11 MR. KASTLER: Nobody.

12 MR. NUTTER: There being nothing further in Case
13 4477, we will take this case under advisement.
14
15
16
17
18
19
20
21
22
23
24
25

dearnley-meier reporting service

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS
209 SIMMS BLDG. • P.O. BOX 1092 • PHONE 243-8191 • ALBUQUERQUE, NEW MEXICO 87103
FIRST NATIONAL BANK BLDG. EAST • ALBUQUERQUE, NEW MEXICO 87108

STATE OF NEW MEXICO)
) SS
COUNTY OF SANTA FE)

I, RICHARD L. NYE, Court Reporter, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

Richard L. Nye
RICHARD L. NYE, Court Reporter

My commission expires April 8, 1971.

I do hereby certify that the foregoing is a complete record of the proceedings in the hearing of Case No. 4473 held by me on 1/6 19 71.
Richard L. Nye, Reporter
New Mexico Oil Conservation Commission

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

January 18, 1971

Mr. Bill Kastler
Gulf Oil Corporation
Post Office Box 1938
Roswell, New Mexico 88201

Dear Sir:

Enclosed herewith is Commission Order No. R-2659-A, entered in Case No. 4477, approving the expansion of the Northwest Sumont Unit Water-Flood Project.

Expanded injection shall be through the 14 newly authorized water injection wells, each of which shall be equipped with internally coated tubing set in a packer. Packers shall be located as near as practicable to the uppermost perforation, or in the case of open-hole completions, to the casing-shoe. The casing-tubing annulus shall be loaded with an inert fluid.

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 2730 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.

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

-2-

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

January 18, 1971

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

Enclosure

ALP/DSM/ir

cc: OCC-Hobbs

Mr. D. E. Gray

State Engineer Office - Santa Fe, New Mexico

ROUGH DRAFT FOR WATERFLOOD LETTERS

Mr. Bill Kastler
Gulf Oil Corporation
Post Office Box 1938
Roswell, New Mexico 88201

Dear Sir:

Enclosed herewith is Commission Order No. R-2659-A, entered in Case No. 4477, approving the *expansion of the Northwest Eminent* Unit Waterflood Project.

Expanded injection shall be through the 14 newly authorized water injection wells, each of which shall be equipped with internally seated tubing set in a packer. Packers shall be installed as near as practicable to the uppermost perforation, or in the face of open-hole completions, to the casing shoe. The casing tubing annulus shall

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 2730 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

USGS

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

Mr. D. E. Gray,

will be useful with the well fluid.

**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. 4477
Order No. R-2659-A**

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

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on January 6, 1971, at Santa Fe, New Mexico, before Examiner Daniel S. Mutter.

NOW, on this 15th day of January, 1971, 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 authority to expand its Northwest Eumont Unit Waterflood Project in its Northwest Eumont Unit Area, Eumont Pool, by the injection of water into the Queen formation through 14 additional injection wells in Sections 26, 27, 33, and 34, Township 19 South, Range 36 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 expansion of the Northwest Eumont Unit Waterflood Project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

-2-

CASE No. 4477

Order No. B-2659-A

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

IT IS THEREFORE ORDERED:

(1) That the applicant, Gulf Oil Corporation, is hereby authorized to expand its Northwest Eumont Unit Waterflood Project in its Northwest Eumont Unit Area, Eumont Pool, by the injection of water into the Queen formation through the following-described 14 additional wells in Township 19 South, Range 36 East, NEPM, Lea County, New Mexico:

SECTION 26

Northwest Eumont Unit Well No. 139, Unit B

SECTION 27

Northwest Eumont Unit Well No. 135 Unit C
Northwest Eumont Unit Well No. 137, Unit A
Northwest Eumont Unit Well No. 141, Unit G
Northwest Eumont Unit Well No. 144, Unit K
Northwest Eumont Unit Well No. 146, Unit O
Northwest Eumont Unit Well No. 148, Unit M

SECTION 33

Northwest Eumont Unit Well No. 149, Unit A
Northwest Eumont Unit Well No. 158, Unit I

SECTION 34

Northwest Eumont Unit Well No. 151 Unit C
Northwest Eumont Unit Well No. 153, Unit A
Northwest Eumont Unit Well No. 154, Unit G
Northwest Eumont Unit Well No. 159, Unit K
Northwest Eumont Unit Well No. 161, Unit O

(2) That the expanded waterflood project shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

(3) That monthly progress reports of the expanded waterflood project herein authorized shall be submitted to the Commission in

-3-
CASE No. 4477
Order No. R-2659-A

accordance with Rules 774 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.

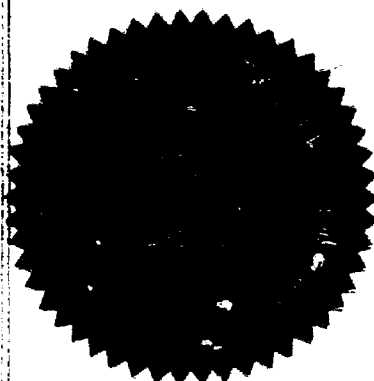
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

B. M. King
BRECK-KING, Chairman

Alex S. Moxijo
ALEX S. MOXIJO, Member

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



esr/

Gulf Oil Company - U.S.

EXPLORATION AND PRODUCTION DEPARTMENT
ROSWELL DISTRICT

Juan Chacin
DISTRICT MANAGER
M. I. Taylor
DISTRICT PRODUCTION
MANAGER
P. E. Wyche
DISTRICT EXPLORATION
MANAGER
H. A. Rankin
DISTRICT SERVICES MANAGER

P. O. Drawer 1938
Roswell, New Mexico 88201

January 8, 1971

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

Attention: Mr. Daniel S. Nutter

Re: Application of Gulf Oil Corporation for
Expansion of Northwest Eumont Unit
Waterflood Project, Lea County,
New Mexico
Case No. 4477, January 6, 1971

Gentlemen:

Attached is a copy of Exhibit No. 4 presented in Case No. 4477 heard before the Commission January 6, 1971. On this copy of the Exhibit we have marked in red the calculated cement tops for wells where such tops were not available from our records. This information, especially the calculated cement tops for the surface casing on Wells No. 139 and No. 149, was requested by Mr. Nutter at the January 6 hearing. According to our calculations, enough cement was used in setting surface casing on Wells No. 139 and 149 for the cement to have circulated to the surface in both cases.

If you need additional information, please let us know.

Yours very truly,

M. I. Taylor
M. I. Taylor

Attachment
DGB:sz



A DIVISION OF GULF OIL CORPORATION

INJECTION WELL DATA
NORTHWEST SUMMIT UNIT WATERFLOOD PROJECT EXPANSION AREA
LEA COUNTY, NEW MEXICO

LEASE NAME		NORTHWEST SUMMIT UNIT (OPERATOR - GULF OIL CORPORATION)												
WELL NUMBER		135	137	139	141	144	146	148	149	151	154	158	159	161
LOC	Location	Unit C 27-19-36	Unit A 27-19-36	Unit E 26-19-36	Unit G 27-19-36	Unit K 27-19-36	Unit O 27-19-36	Unit M 27-19-36	Unit A 33-19-36	Unit C 34-19-36	Unit G 34-19-36	Unit I 33-19-36	Unit K 34-19-36	Unit O 34-19-36
SURFACE CASING	Size	8-5/8" 22.7#	9-5/8" 36#	10-3/4" 32.75#	8-5/8" 32#	8-5/8" 24#	8-5/8" 24#	8-5/8" 24#	8-5/8" 32#	9-5/8" 32.3#	8-5/8" 24#	8-5/8" 22.7#	9-5/8" 36#	8-5/8" 32#
	Length	372'	339'	212'	257'	309'	252'	346'	292'	311'	1378'	315'	317'	304'
	Cement: Volume (Sacks) Top @	201 Circ.	250 Circ.	225 Circ. (Calc.)	200 Circ.	175 Circ.	225 Circ.	175 Circ.	250 Circ. (Calc.)	275 Circ.	850 Circ.	150 Circ.	300 Circ.	300 Circ.
PRODUCTION CASING	Size	5-1/2" 15.5#	5-1/2" 15#	5-1/2" 17#	5-1/2" 15.5#	5-1/2" 14#	5-1/2" 14#	5-1/2" 14#	5-1/2" 15.5#	7" 20#	5-1/2" 14#	5-1/2" 15#	7" 22#	5-1/2" 15.5#
	Length	4090'	4084'	3790'	3947'	3928'	3823'	4019'	4122'	3832'	3950'	4083'	3800'	3866'
	Cement: Volume (Sacks) Top @	200 3513'	540 2630'	425 Circ. (Calc.)	450 2535'	450 2670'	250 2223' (Calc.)	350 2675'	200 2847' (Calc.)	1650 Circ. (Calc.)	600 Circ.	250 2483' (Calc.)	800 1925'	750 Circ. (Calc.)
TUBING	Size	2-3/8" 4.7#	2-3/8" 4.7#	2-3/8" 4.7#	2-3/8" 4.7#	2-3/8" 4.7#	2-3/8" 4.7#	2-3/8" 4.7#	2-5/8" 4.7#	2-3/8" 4.7#	2-3/8" 4.7#	2-3/8" 4.7#	2-3/8" 4.7#	2-3/8" 4.7#
	Length (Approx)	4000'	3900'	3750'	3900'	3900'	3780'	3975'	3900'	3800'	3850'	4000'	3770'	3836'
	Packer ⁽¹⁾ Depth (Approx)	4000'	3900'	3750'	3900'	3900'	3780'	3975'	3900'	3800'	3850'	4000'	3770'	3836'
IN	Interval	4028-4086'	3934-3992'	3790-3950'	3947-4068'	3928-4013'	3823-4086'	4019-4100'	3924-4118'	3832-4000'	3888-3947'	4042-4070'	3800-3940'	3866-3961'
	Perforations or Open Hole	Perfs	Perfs	Open Hole	Open Hole	Open Hole	Open Hole	Open Hole	Perfs	Open Hole	Perfs	Perfs	Open Hole	Open Hole
TD	Total Depth	4090'	4056' FB	3950' FB	4068' FB	4013'	4086'	4100'	4115' FB	4000'	3950'	4074' FB	3940'	3961'

(1) Tension Type Packer, Guiberson "Shorty" or Baker Model "AD"

CASE NO. 4477
 EXHIBIT NO. 4

DIAGRAMMATIC SKETCH
TYPICAL WATER INJECTION WELL
EXPANSION AREA - NORTHWEST EUMONT UNIT WATERFLOOD PROJECT
LEA COUNTY, NEW MEXICO

NWEU WELL NO. 141
(UNIT G, 27-19S-36E)

8-5/8" 32# H-40
CSG. SET @ 257'
CMTD. W/200 SX. CIRC.

TUBING-CASING ANNULUS TO BE
LOADED WITH INHIBITED WATER

2-3/8" 4.7# J-55
INTERNALLY COATED
TBG. @ APPROX. 3900'

5-1/2" 15.5# J-55
CSG. SET @ 3947'
CMTD. W/450 SX.
TS TOP @ 2535'

PBTD 4068'
TD 4095'

ANTICIPATED INJECTION VOLUME:
350 BWPD/INJECTION WELL

WATER SOURCE: PRODUCED WATER
PLUS MAKE-UP WATER FROM
SAN ANDRES WATER SUPPLY WELL

#4477
1-6-71
App. #3
N2H

TENSION TYPE PKR. @ APPROX. 3900'
(GUIBERSON "SHORTY" OR BAKER MODEL "AD")

INJECTION INTERVAL 3947-4068'
OPEN HOLE IN QUEEN FORMATION

CASE NO. 4477
EXHIBIT NO. 3
JANUARY 6, 1971

DOCKET: EXAMINER HEARING - WEDNESDAY - JANUARY 6, 1971

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 4463: Continued from the November 18, 1970, Examiner Hearing

Application of Roger C. Hanks for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the NE/4 of Section 18, Township 9 South, Range 36 East, Vada-Pennsylvanian Pool, Lea County, New Mexico, said acreage to be dedicated to applicant's Ford Federal Well No. 1 located in the NW/4 NE/4 of Section 18. Also to be considered will be the costs of drilling said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges for supervision of said well.

CASE 4477: Application of Gulf Oil Corporation for a waterflood expansion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to expand its Northwest Eumont Unit Waterflood Project, Eumont Pool, by the conversion to water injection of thirteen additional wells in Sections 26, 27, 33, and 34, of Township 19 South, Range 36 East, Lea County, New Mexico.

CASE 3786: (Reopened):

In the matter of Case No. 3786 being reopened pursuant to the provisions of Order No. R-3437-A, which order extended for a period of 18 months the special rules and regulations for the North Paduca-Delaware Pool, Lea County, New Mexico. All interested persons may appear and show cause why the gas-liquid ratio limitation of 3,000 cubic feet of gas per barrel of liquid hydrocarbons should not be reduced and why the special rules and regulations should not be discontinued.

CASE 4455: Continued from the November 18, 1970, Examiner Hearing

In the matter of the hearing called by the Oil Conservation Commission for the creation of a new oil pool and for the assignment of a discovery allowable, Sandoval County, New Mexico. The Commission, at the request of Refiners Petroleum Corporation, will consider the creation of a new oil pool for the production of oil from the Dakota formation comprising the NE/4 of Section 25, Township 22 North, Range 3 West, Sandoval County, New Mexico, said pool having been discovered by said corporation's Cuba Union Well No. 1 located in Unit A of said Section 25. Also to be considered will be the assignment of approximately 34,390 barrels of discovery allowable to said well.

71 JAN 11 AM 8 30

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

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

Re: Application of Gulf Oil Corporation for
Expansion of the Northwest Eumont Unit
Waterflood Project, Lea County, New Mexico
Case No. 4477, January 6, 1971

Gentlemen:

We have been advised that Gulf Oil Corporation plans to expand waterflood operations in the Northwest Eumont Unit, Lea County, New Mexico; and that in addition to the thirteen wells set out in the December 3, 1970 application for hearing, Gulf intends to ask permission to convert Unit Well No. 153 to water injection also.

We understand that Northwest Eumont Unit Well No. 153 is located in Unit A of Section 34, T-19-S, R-36-E, Lea County, New Mexico and as offset operator we have no objection to the conversion of this well to water injection service as proposed.

Executed this 4th day of January, 1971.

Yours very truly,

COMPANY: Continental Oil Company

BY: [Signature]

TITLE: Assistant Division Manager

Please Return One Copy To:

Gulf Oil Company-U.S.
Post Office Box 1938
Roswell, New Mexico 88201
Attention: Mr. M. I. Taylor

71 JAN 5 PM 1 07

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

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

Re: Application of Gulf Oil Corporation for
Expansion of the Northwest Eumont Unit
Waterflood Project, Lea County, New Mexico
Case No. 4477, January 6, 1971

file Case 4477

Gentlemen:

We have been advised that Gulf Oil Corporation plans to expand waterflood operations in the Northwest Eumont Unit, Lea County, New Mexico; and that in addition to the thirteen wells set out in the December 3, 1970 application for hearing, Gulf intends to ask permission to convert Unit Well No. 153 to water injection also.

We understand that Northwest Eumont Unit Well No. 153 is located in Unit A of Section 34, T-19-S, R-36-E, Lea County, New Mexico and as offset operator we have no objection to the conversion of this well to water injection service as proposed.

Executed this 4th day of January, 19 71.

Yours very truly,

AMERADA DIVISION
AMERADA HESS CORPORATION

COMPANY:

BY: G. O. Webb G. O. Webb

TITLE: Joint Interest Manager

Please Return One Copy To:

Gulf Oil Company-U.S.
Post Office Box 1938
Roswell, New Mexico 88201
Attention: Mr. M. I. Taylor

INJECTION WELL DATA
NORTHWEST SUMMIT UNIT WATERFLOOD PROJECT EXPANSION AREA
LEA COUNTY, NEW MEXICO

LEASE NAME		NORTHWEST SUMMIT UNIT (OPERATOR - GULF OIL CORPORATION)												
WELL NUMBER		135	137	139	141	144	146	148	149	151	154	156	159	161
LOC	Location	Unit C 27-19-36	Unit A 27-19-36	Unit E 26-19-36	Unit D 27-19-36	Unit K 27-19-36	Unit O 27-19-36	Unit M 27-19-36	Unit A 33-19-36	Unit C 34-19-36	Unit G 34-19-36	Unit I 33-19-36	Unit K 34-19-36	Unit O 34-19-36
SURFACE CASING	Size	8-5/8"	9-5/8"	10-3/4"	8-5/8"	8-5/8"	8-5/8"	8-5/8"	8-5/8"	9-5/8"	8-5/8"	8-5/8"	9-5/8"	8-5/8"
	Length	22.7'	36'	32.75'	32'	24'	24'	24'	32'	32.3'	24'	22.7'	36'	32'
	Cement: Volume (Sacks) Top @	372'	339'	212'	257'	309'	252'	346'	292'	311'	1378'	315'	317'	304'
PRODUCTION CASING	Size	201	250	225	200	175	225	175	250	275	850	150	300	300
	Length	Circ.	Circ.		Circ.	Circ.	Circ.	Circ.		Circ.	Circ.	Circ.	Circ.	Circ.
	Cement: Volume (Sacks) Top @	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	7"	5-1/2"	5-1/2"	7"	5-1/2"
TUBING	Size	15.5'	15'	17'	15.5'	14'	14'	14'	15.5'	20'	14'	15'	23'	15.5'
	Length (Approx)	4090'	4084'	3790'	3947'	3928'	3823'	4019'	4122'	3832'	3950'	4083'	3800'	3866'
	Packer (1) Depth (Approx)	200	540	425	450	450	250	350	200	1650	600	250	600	750
INT	Size	3513'	2630'		2535'	2670'		2675'			Circ.		1925'	
	Length (Approx)	2-3/8"	2-3/8"	2-3/8"	2-3/8"	2-3/8"	2-3/8"	2-3/8"	2-3/8"	2-3/8"	2-3/8"	2-3/8"	2-3/8"	2-3/8"
	Packer (1) Depth (Approx)	4.7'	4.7'	4.7'	4.7'	4.7'	4.7'	4.7'	4.7'	4.7'	4.7'	4.7'	4.7'	4.7'
FD	Interval	4000'	3900'	3750'	3900'	3900'	3780'	3975'	3900'	3800'	3850'	4000'	3770'	3836'
	Perforations or Open Hole	4000'	3900'	3750'	3900'	3900'	3780'	3975'	3900'	3800'	3850'	4000'	3770'	3836'
	Interval	4028-4086'	3934-3992'	3790-3950'	3947-4069'	3928-4013'	3823-4086'	4019-4100'	3924-4118'	3832-4000'	3888-3947'	4042-4070'	3800-3940'	3866-3961'
FD	Perforations or Open Hole	Perfs	Perfs	Open Hole	Open Hole	Open Hole	Open Hole	Open Hole	Perfs	Open Hole	Perfs	Perfs	Open Hole	Open Hole
	Interval	4028-4086'	3934-3992'	3790-3950'	3947-4069'	3928-4013'	3823-4086'	4019-4100'	3924-4118'	3832-4000'	3888-3947'	4042-4070'	3800-3940'	3866-3961'
	Total Depth	4090'	4056' FB	3950' FB	4068' FB	4013'	4086'	4100'	4115' FB	4000'	3950'	4074' FB	3940'	3961'

(1) Tension Type Packer, Guiberson "Shorty" or Baker Model "AD"

CASE NO. 4477
EXHIBIT NO. 4

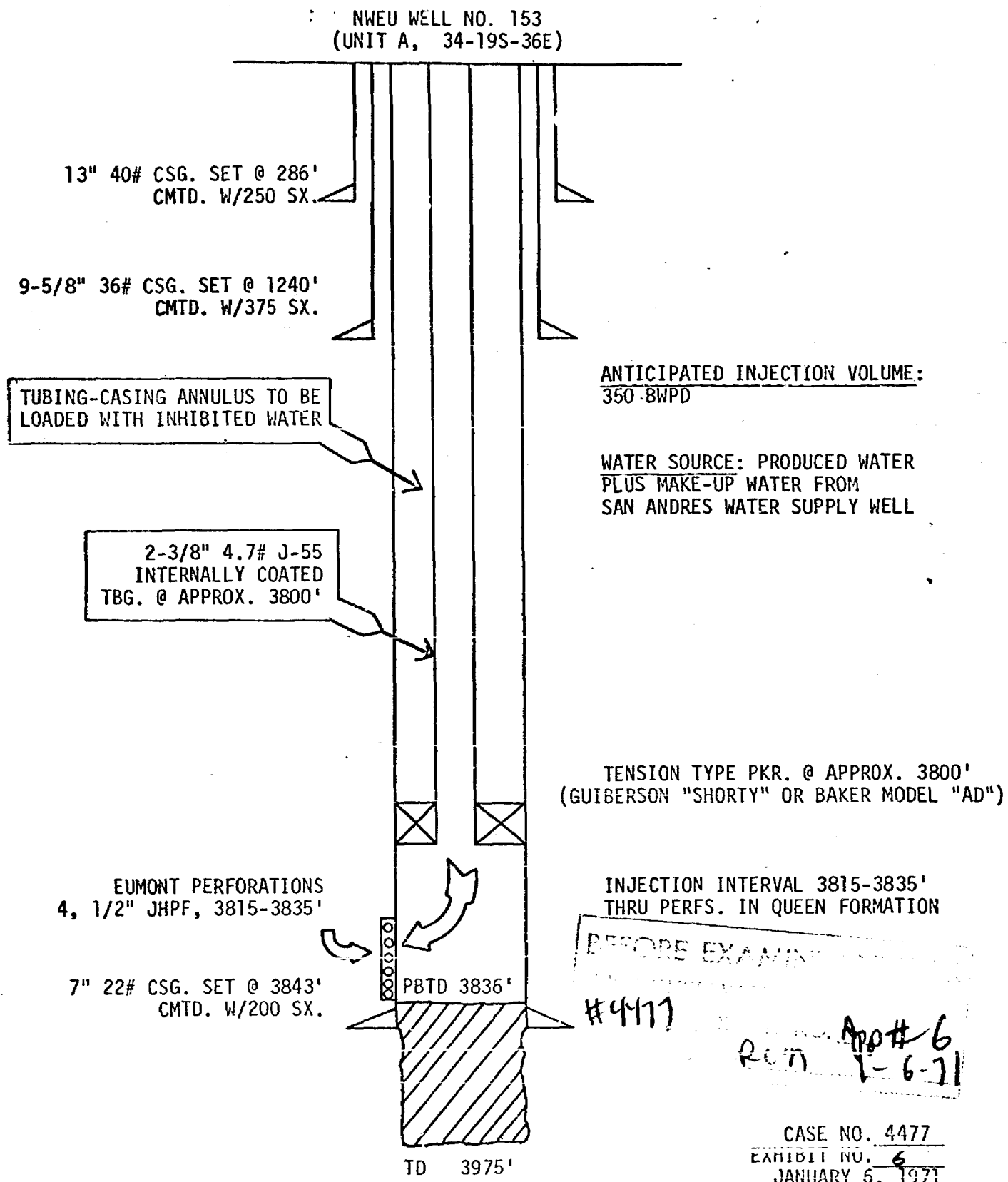
1-6-71
Core # No 4477

APP #4
n-r

CASE NO. 4477
EXHIBIT NO. 5

MODEL 1430 WEST-MARTIN CO.
VILSA 74001
**ELECTRIC LOG
FILING ENVELOPE**

DIAGRAMMATIC SKETCH
PROPOSED WATER INJECTION WELL
EXPANSION AREA - NORTHWEST EUMONT UNIT WATERFLOOD PROJECT
LEA COUNTY, NEW MEXICO



Gulf Oil Company - U.S.

EXPLORATION AND PRODUCTION DEPARTMENT
ROSWELL DISTRICT

December 24, 1970

P. O. Drawer 1938
Roswell, New Mexico 88201

Juan Chacin
DISTRICT MANAGER
M. I. Taylor
DISTRICT PRODUCTION
MANAGER
P. E. Wyche
DISTRICT EXPLORATION
MANAGER
H. A. Rankin
DISTRICT SERVICES MANAGER

Anarada Division
Anarada Inc. Corporation
Post Office Box 591
Midland, Texas 79701

Continental Oil Company
Post Office Box 460
Hobbs, New Mexico 88240

Re: Conversion of Northwest Eumont Unit Well
No. 153 to Water Injection Service

Gentlemen:

Attached is a letter to you as Working Interest Owners in the Northwest Eumont Unit asking approval of an AFE to convert Unit Well No. 153 to water injection service. Since Anarada and Continental are offset operators to this well, in addition to being Working Interest Owners in the Northwest Eumont Unit, we are requesting that you execute the attached waiver approving the conversion in order to expedite approval of the No. 153 by the Oil Conservation Commission.

If you have no objection to conversion of this well to water injection, please execute the attached waiver and return one copy to Gulf and forward one copy to the Oil Conservation Commission in Santa Fe. If possible, we would appreciate approval of the waiver and its return to Gulf by January 4, 1971, so that it can be available for the January 6th hearing.

Yours very truly,

M. I. Taylor

Attachment
DGB:dch



A DIVISION OF GULF OIL CORPORATION

4477

Case No. 4477

Exhibit No. 8

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

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

Re: Application of Gulf Oil Corporation for
Extension of the Northwest Eumont Unit
Waterflood Project, Lea County, New Mexico
Case No. 4477, January 6, 1971

Gentlemen:

We have been advised that Gulf Oil Corporation plans to expand waterflood operations in the Northwest Eumont Unit, Lea County, New Mexico; and that in addition to the thirteen wells set out in the December 3, 1970 application for hearing, Gulf intends to ask permission to convert Unit Well No. 153 to water injection also.

We understand that Northwest Eumont Unit Well No. 153 is located in Unit A of Section 34, T-19-S, R-36-E, Lea County, New Mexico and as offset operator have no objection to the conversion of this well to water injection service as proposed.

Executed this _____ day of _____, 19____.

Yours very truly,

COMPANY: _____

BY: _____

TITLE: _____

Please Return One Copy To:

Gulf Oil Company-U.S.
Post Office Box 1938
Roswell, New Mexico 88201
Attention: Mr. M. I. Taylor

Gulf Oil Company U.S.

EXPLORATION AND PRODUCTION DEPARTMENT
ROSWELL DISTRICT

Juan Chacin
DISTRICT MANAGER
M. I. Taylor
DISTRICT PRODUCTION
MANAGER
P. E. Wyche
DISTRICT EXPLORATION
MANAGER
H. A. Rankin
DISTRICT SERVICE MANAGER

December 9, 1970

P. O. Drawer 1938
Roswell, New Mexico 88201

See 4477

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

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

Re: Application of Gulf Oil Corporation for Expansion of
the Northwest Eumont Unit Waterflood Project,
Lea County, New Mexico

Gentlemen:

Gulf Oil Corporation requests that an Examiner Hearing be scheduled
to consider the expansion of the Northwest Eumont Unit Waterflood Project,
Lea County, New Mexico.

In support of this application, the following facts are submitted:

- (1) The Northwest Eumont Unit Waterflood Project was approved by the
Commission by Order No. R-2659 dated March 4, 1964 (Case No. 2982).
- (2) Applicant proposes to expand this project by injecting water into the
Queen formation through 13 wells in Sections 26, 27, 33 and 34, T-19S,
R-36E, Lea County, New Mexico, as shown on the attached plat.
- (3) The proposed injection wells, all in T-19S, R-36E, Lea County, New Mexico,
are described as follows:

SECTION 26

Northwest Eumont Unit Well No. 139, Unit E

SECTION 27

Northwest Eumont Unit Well No. 135, Unit C
Northwest Eumont Unit Well No. 137, Unit A
Northwest Eumont Unit Well No. 141, Unit G
Northwest Eumont Unit Well No. 144, Unit K
Northwest Eumont Unit Well No. 146, Unit O
Northwest Eumont Unit Well No. 148, Unit M

SECTION 33

Northwest Eumont Unit Well No. 149, Unit A
Northwest Eumont Unit Well No. 158, Unit I



A DIVISION OF GULF OIL CORPORATION

DOCKET MAILED

Date 12-23-70

SECTION 34

Northwest Eumont Unit Well No. 151, Unit C
Northwest Eumont Unit Well No. 154, Unit G
Northwest Eumont Unit Well No. 159, Unit K
Northwest Eumont Unit Well No. 161, Unit O

- (4) Applicant proposes to use the same plan for equipping these injection wells as previously approved for the Northwest Eumont Unit Waterflood Project.

Respectfully submitted,

GULF OIL CORPORATION


M. I. Taylor

Attachment
DGB:sz

cc: Commissioner of Public Lands
State of New Mexico
Post Office Box 1148
Santa Fe, New Mexico 87501

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

Working Interest Owners
Northwest Eumont Unit

Charm Oil Company
314 Carper Building
Artesia, New Mexico 88210

Resler & Sheldon
314 Carper Building
Artesia, New Mexico 88210

DRAFT

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:

CASE No. 4477

Order No. R-26574

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

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on January 6, 1971,
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this _____ day of January, 1971, 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,
expand its Northwest Eumont Unit
seeks authority to/~~institute a~~ Waterflood Project in ~~the~~ its
Northwest Eumont Unit Area, Eumont Pool,
by the injection of water into the Queen formation
through 14 additional injection wells in Sections 26, 27, 33, and 34,
Township 19 ~~Nxxxx~~ South, Range 36 ~~Wxxxx~~ 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.

(5) That the subject application should be approved and expanded 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, expand its Northwest Eumont Unit is hereby authorized to ~~institute~~¹⁵ a Waterflood Project in ~~the~~ its Northwest Eumont Unit Area, Eumont Pool, by the injection of water into the Queen formation ~~15~~ additional through the following-described/wells in Township 19 ~~North~~, South, Range 36 ~~West~~, East, NMPM, Lea County, New Mexico:

SECTION 26

Northwest Eumont Unit Well No. 139, Unit E ✓

SECTION 27

Northwest Eumont Unit Well No. 135, Unit C ✓
Northwest Eumont Unit Well No. 137, Unit A ✓
Northwest Eumont Unit Well No. 141, Unit G ✓
Northwest Eumont Unit Well No. 144, Unit K ✓
Northwest Eumont Unit Well No. 146, Unit O ✓
Northwest Eumont Unit Well No. 148, Unit M ✓

SECTION 33

Northwest Eumont Unit Well No. 149, Unit A ✓
Northwest Eumont Unit Well No. 153, Unit I ✓

SECTION 34

Northwest Eumont Unit Well No. 151, Unit C ✓
~~Northwest Eumont Unit Well No. 153, Unit A ✓~~
Northwest Eumont Unit Well No. 154, Unit G ✓
Northwest Eumont Unit Well No. 159, Unit R ✓
Northwest Eumont Unit Well No. 161, Unit O ✓

(SEE UNDER)

tions.

(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.