

CASE 6418: GULF OIL CORPORATION FOR A  
DUAL COMPLETION, EDDY COUNTY, NEW  
MEXICO

CASE NO.

64/8

---

APPLICATION,  
TRANSCRIPTS,  
SMALL EXHIBITS,  
ETC.

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION  
State Land Office Building  
Santa Fe, New Mexico  
17 January 1979

EXAMINER HEARING

IN THE MATTER OF:

Application of Gulf Oil Corporation )  
for a dual completion, Eddy County, )  
New Mexico. )

CASE  
6418

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation  
Division:

Lynn Teschendorf, Esq.  
Legal Counsel for the Division  
State Land Office Bldg.  
Santa Fe, New Mexico 87501

For the Applicant:

Terry I. Cross, Esq.  
The Gulf Companies  
Gulf Building  
P. O. Box 1150  
Midland, Texas 79702

SALLY WALTON BOYD  
CERTIFIED SHORTHAND REPORTER  
209 Plaza Blanca (S.E.) 471-4402  
Santa Fe, New Mexico 87501

I N D E X

RUSSELL WORLEY

Direct Examination by Mr. Cross 3

Cross Examination by Mr. Nutter 7

C. D. STENBERG

Direct Examination by Mr. Cross 8

Cross Examination by Mr. Nutter 11

E X H I B I T S

Applicant Exhibit One, C-107 7

Applicant Exhibit Two, C-102 7

Applicant Exhibit Three, C-122 7

Applicant Exhibit Four, Sketch 7

Applicant Exhibit Five, Logs 11

SALLY WALTON BOYD  
CERTIFIED SHORTHAND REPORTER  
2020 Plaza Elan (666) 471-3463  
Santa Fe, New Mexico 87501



SALLY WALTON BOYD  
CERTIFIED SHORTHAND REPORTER  
3028 Plaza Blanca (S.E.) 471-2463  
Santa Fe, New Mexico 87501

1 MR. NUTTER: We'll call next Case Number 6418.

2 MS. TESCHENDORF: Case 6418. Application of  
3 Gulf Oil Corporation for a dual completion, Eddy County,  
4 New Mexico.

5 MR. CROSS: Terry Cross, appearing on behalf  
6 of Gulf and we have a letter of appearance from Mr. James  
7 Sperling.

8 MR. NUTTER: Right, we have that in the  
9 file.

10 MR. CROSS: I have two witnesses.  
11 (Witnesses sworn.)

12  
13 RUSSELL WORLEY  
14 being called as a witness and having been duly sworn upon  
15 his oath, testified as follows, to-wit:

16  
17 DIRECT EXAMINATION

18 BY MR. CROSS:

19 Q Please state your name.

20 A My name is Russell Worley.

21 Q Who are you employed with and in what capa-  
22 city are you employed?

23 A I'm employed by Gulf Oil Corporation as an  
24 engineer in the production operations.

25 Q Would you briefly summarize your educational

1 background and your engineering experience?

2 A I have a degree in geology from Centenary  
3 College. I've worked as petroleum engineer for Gulf for  
4 ten years, with the last seven years in the Permian Basin,  
5 as a Hobbs Area Completion and Remedial Engineer.

6 MR. CROSS: Mr. Examiner, is this witness  
7 qualified?

8 MR. NUTTER: Yes, he is.

9 Q (Mr. Cross continuing.) All right.

10 MR. NUTTER: Where are you located at the  
11 present time?

12 A Hobbs.

13 MR. NUTTER: Okay.

14 Q Mr. Worley, would you please state what Gulf  
15 is seeking in this application?

16 A Gulf is seeking authorization to drill and  
17 complete the Eddy "GR" State Well No. 1, located in Unit  
18 E, Section 16, Township 23 South, Range 28 East, Eddy  
19 County, New Mexico, to produce gas from the Atoka and  
20 Morrow formations through parallel tubing strings.

21 Q Referring to Gulf's Exhibit Number One,  
22 which is the OCD form C-107, Application for Multiple  
23 Completion, which is styled in connection with the subject  
24 well, will you please summarize the information for the  
25 Examiner?

SALLY WALTON BOYD  
CERTIFIED SHORTHAND REPORTER  
3030 Plaza Blanca (606) 471-2462  
Santa Fe, New Mexico 87501

1 A This form was submitted to the Commission  
2 on December 7th, 1978. The Eddy "GR" No. 1 is presently  
3 completed in the Morrow formation through selected perfor-  
4 ations from 12,256 feet to 12,364 feet as a flowing gas  
5 well.

6 We propose also to perforate the Atoka form-  
7 ation through selected perforations, 11,945 feet to 11,965  
8 feet.

9 We anticipate this zone will also be flowing  
10 gas production and we propose to complete the two zones  
11 to produce separately through parallel tubing strings.

12 Q Referring to Gulf's Exhibit Number Two,  
13 which is the OCD form C-102, would you please summarize  
14 the information contained on that form for the Examiner?

15 A The Form C-102 was filed with the OCD on  
16 June 30th, 1978. The location of the subject well is 2230  
17 feet from the north line, 660 feet from the west line in  
18 Unit E, Section 16, Township 23 South, Range 28 East,  
19 Eddy County, New Mexico.

20 Q Referring to Gulf's Exhibit Number Three,  
21 which is the OCD Form C-122, Multipoint Back Pressure Test,  
22 would you please summarize the information on that form  
23 for the Examiner?

24 A Yes. This is Gulf's Exhibit Number Three.  
25 A calculated open flow potential test was obtained on October

SALLY WALTON BOYD  
CERTIFIED SHORTHAND REPORTER  
3038 Plaza Blanca (988) 471-2462  
Santa Fe, New Mexico 87501

1 28th, 1978 on the Morrow formation of the subject well, in-  
2 dicating an absolute open flow 3089 Mcf gas per day.

3 Q Do you have a diagrammatical sketch which  
4 depicts the particulars of the wellbore, and if so, please  
5 explain that to the Examiner?

6 A Yes. This is Gulf's Exhibit Number Four.  
7 Indicates the well has 20-inch casing set at 404 feet  
8 cemented with 800 sacks, cement circulated; 13-3/8ths casing  
9 set at 2632, cemented with 1800 sacks, cement circulated;  
10 9-5/8 casing set at 9650 with a DV tool at 4580, cemented  
11 in two stages with a total of 2550 sacks, cement circulated;  
12 7-inch liner is set 9302 feet to a total depth of 12,710  
13 feet, cemented with 910 sacks and cement circulated.  
14 Present plug-back depth is 12,445 feet. The Morrow zone  
15 is presently completed through gross perforations 12,256  
16 feet to 12,364 feet.

17 We now propose to perforate the Atoka forma-  
18 tion through gross perforations 11,945 feet, 11,965 feet.  
19 Atoka perforations will be accomplished using Van gun as-  
20 sembly which will be run with the production tubing, per-  
21 forations made after both strings with packers have been  
22 positioned and set in the wellbore, Christmas tree installed  
23 well buttoned up.

24 Production from the two zones will be sepa-  
25 rated by a Baker Model D packer, set at 12,180 feet, and a

SALLY WALTON BOYD  
CERTIFIED SHORTHAND REPORTER  
3018 Plaza Blanca (G65) 471-0482  
Santa Fe, New Mexico 87501

1 Baker Model A-5 Dual Hydrostatic packer set at approximately  
2 11,900 feet.

3 The two formations will then be produced  
4 separately through two parallel strings of tubing, as indi-  
5 cated in Exhibit Four.

6 Q Mr. Worley, is there anything you'd like to  
7 add?

8 A Yes. Upon approval of this application and  
9 completion of the physical work the appropriate tests will  
10 be performed to determine that isolation of the two pro-  
11 ducing zones has been effective. At this time the appro-  
12 priate packer leakage tests will be submitted to the OCD.

13 Q Was Exhibit Four prepared by you or under  
14 your supervision?

15 A Yes, it was. And the OCD forms were com-  
16 pleted by the other Gulf employees.

17 MR. CROSS: Mr. Examiner, I have no further  
18 questions of this witness. I move that Gulf's Exhibits One  
19 through Four be admitted into evidence.

20 MR. NUTTER: Exhibits One through Four will  
21 be admitted in evidence.

22  
23 CROSS EXAMINATION

24 BY MR. NUTTER:

25 Q Mr. Worley, these perforations down here be-

SALLY WALTON BOYD  
CERTIFIED SHORTHAND REPORTER  
3029 Plaza Blanca (SOS) 478-9443  
Santa Fe, New Mexico 87501

SALLY WALTON BOYD  
CERTIFIED SHORTHAND REPORTER  
3030 Plaza Blanca (608) 471-3463  
Santa Fe, New Mexico 87501

1 low the plug seal assembly in the well, are those lower  
2 Morrow perforations that are non-productive?

3 A Yes, sir, they were. They were previously  
4 tested and plugged back.

5 Q Did you have any test on the Atoka zone when  
6 the well was being drilled?

7 A No, sir, we did not. I do not remember  
8 whether or not we did.

9 Q You're operating on the appearance of the  
10 log, then.

11 A Yes, sir.

12 Q Now your Exhibit Number One reflects that  
13 the top of the perforations on the Morrow would be 257,  
14 12,257, but you've stated 12,256, and also Exhibit Four  
15 shows 12,256, so I assume that that figure should be cor-  
16 rected there on Exhibit One, is that correct?

17 A Yes, sir, that should be a typographical  
18 error. Let me check. It is 257, sir, the other exhibits  
19 are wrong.

20 Q Oh, I see.

21 MR. NUTTER: Are there any other questions  
22 of this witness? He may be excused.

23  
24 C. D. STENBERG

25 being called as a witness and having been duly sworn upon

his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. CROSS:

Q Will you please state your name, your employer, location, and what capacity you are employed?

A C. D. Stenberg, employed by Gulf Oil Corporation in Midland, Texas. Geologist in their production department.

Q Have you previously qualified to testify before the Division?

A Yes.

MR. CROSS: Is the witness qualified?

MR. NUTTER: Yes, he is.

Q (Mr. Cross continuing.) Mr. Stenberg, referring to Gulf's Exhibit Number Five, would you please explain the purpose of this exhibit to the Examiner?

A Yes. Exhibit Five is a cross section A-to-A prime, which contains gamma ray neutron density and sample logs and the location plat is down at the bottom of the -- bottom lefthand corner in Sections 17, 16, and 22 of 23 South and 28 East.

The section is hung on top of the Morrow formation. I have some blue and red colored marks on the gamma ray side of the logs to show further correlation and

SALLY WALTON BOYD  
CERTIFIED SHORTHAND REPORTER  
3920 West Blauen (805) 471-2462  
Santa Fe, New Mexico 87501



1 the well on the lefthand side is the Cities Service Polk,  
2 which is in Section 17, and the center well is the Gulf No.  
3 1 "GR" State in Section 16, and the righthand well is the  
4 Amoco No. 1 Ingles, which is in Section 22.

5 Q Referring to Exhibit Five, would you please  
6 explain on what basis the tops of the Morrow was picked?

7 A To resolve the question concerning the tops  
8 of the Morrow and the other Pennsylvanian markers, Mr.  
9 Gressett of the OCC District Supervisor at Artesia referred  
10 the Eddy State "GR" 1 Gulf Well to Mr. John Runyan, the  
11 OCC geologist in Hobbs, and it's my understanding that Mr.  
12 Runyan conferred with Ken Mellon, who's the area geologist,  
13 Gulf's area geologist at Hobbs, and between them they agreed  
14 on the formation tops as shown on Gulf's "GR" No. 1.

15 To arrive at their conclusion they used a  
16 publication titled Eddy County Nomenclature Cross Sections.  
17 This was a study prepared by an industry committee.

18 Now the tops that were agreed upon by Mr.  
19 Runyan and Ken Mellon of the Gulf office were the Strawn,  
20 as shown on the center log in the cross section at 11,166  
21 feet; the Atoka top, 11,310; and the Morrow, 11,971.

22 Now, as far as the sample log and the open  
23 hole neutron density and gamma ray logs are concerned, for  
24 agreement included the sample logs to show that the top of  
25 the Morrow agrees with -- were predominately sands, a sand

SALLY WALTON BOYD  
CERTIFIED SHORTHAND REPORTER  
3030 Plaza Blanca (505) 471-9463  
Santa Fe, New Mexico 87501



1 shale sequence of the Morrow begins, and these -- these  
2 tops agree very well with the tops that were picked on the  
3 center log by -- on the Gulf No. 1 "GR".

4 I've colored the yellow there at the top, the  
5 start of the sands for the Morrow, on the sample logs.

6 Q Mr. Stenberg, was Exhibit Five prepared by  
7 you?

8 A Yes, it was.

9 MR. CROSS: I have no further questions of  
10 this witness and I move that Gulf's Exhibit Number Five  
11 be admitted.

12 MR. NUTTER: Exhibit Five will be admitted  
13 in evidence.

14  
15 CROSS EXAMINATION

16 BY MR. NUTTER:

17 Q Mr. Stenberg, now the proposed Atoka com-  
18 pletion is here at 11,945 to 65 on this cross section.

19 A Yes, sir.

20 Q And what is that Morrow top picked at again?  
21 What was the agreement on the top?

22 A 11,971.

23 Q So we would have to call this Lower Atoka,  
24 I presume.

25 A Yes, sir, from the information I have and

SALLY WALTON BOYD  
CERTIFIED SHORTHAND REPORTER  
3420 Plaza, Kansas (913) 471-2482  
Suite 20, New Mexico 07861

1 from the correlations, it would be Low Atoka.

2 Q Very low.

3 A Very, very low Atoka. I would like to add  
4 one more thing, note on the righthand log, the Amoco Ingles  
5 log, the operator top of the Morrow they picked -- I got  
6 this information from the scout cards -- at 12,390.

7 Q Uh-huh, so that may not have been picked --  
8 or that obviously wasn't picked by the same people who  
9 picked the top for your well.

10 A No, sir. The way they're depicted here is  
11 the way Gulf both exploration and production geologists  
12 picked the top of the Morrow, predominantly, generally with  
13 the aid of sample logs where you began picking up the Mor-  
14 row sands.

15 Q There's been a lot of questions about the  
16 tops out there in that country; that's why we have those  
17 cross sections.

18 MR. NUTTER: Are there further questions of  
19 this witness? He may be excused.

20 Do you have anything further, Mr. Cross.

21 MR. CROSS: No, sir, we don't.

22 MR. NUTTER: Does anyone have anything they  
23 wish to offer in Case Number 6418?

24 We'll take the case under advisement.

25 (Hearing concluded.)

SALLY WALTON BOYD  
CERTIFIED SHORTHAND REPORTER  
2028 Plaza Blanca (505) 471-2482  
Santa Fe, New Mexico 87501

## REPORTER'S CERTIFICATE

I, SALLY W. BOYD, a Court Reporter, DO HEREBY  
CERTIFY that the foregoing and attached Transcript of  
Hearing before the Oil Conservation Division was reported  
by me; that said transcript is a full, true, and correct  
record of the hearing, prepared by me to the best of my  
ability, knowledge, and skill, from my notes taken at the  
time of the hearing.

SALLY WALTON BOYD  
CERTIFIED SHORTHAND REPORTER  
20116 Plaza Blanca (665) 471-2462  
Santa Fe, New Mexico 87501

Sally W. Boyd CSR  
Sally W. Boyd, C.S.R.

I do hereby certify that the foregoing is  
a complete record of the proceedings in  
the Examiner hearing of Case No. 6418  
heard by me on 1/17 1979  
[Signature], Examiner  
Oil Conservation Division

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION  
State Land Office Building  
Santa Fe, New Mexico  
17 January 1979

EXAMINER HEARING

IN THE MATTER OF:

Application of Gulf Oil Corporation )  
for a dual completion, Eddy County, )  
New Mexico. )

CASE  
6418

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation  
Division:

Lynn Teschendorf, Esq.  
Legal Counsel for the Division  
State Land Office Bldg.  
Santa Fe, New Mexico 87501

For the Applicant:

Terry I. Cross, Esq.  
The Gulf Companies  
Gulf Building  
P. O. Box 1150  
Midland, Texas 79702

SALLY WALTON BOYD  
CERTIFIED SHORTHAND REPORTER  
3020 Plaza Blanca (666) 471-2462  
Santa Fe, New Mexico 87501

## INDEX

## RUSSELL WORLEY

Direct Examination by Mr. Cross 3

Cross Examination by Mr. Nutter 7

## C. D. STENBERG

Direct Examination by Mr. Cross 8

Cross Examination by Mr. Nutter 11

## EXHIBITS

Applicant Exhibit One, C-107 7

Applicant Exhibit Two, C-102 7

Applicant Exhibit Three, C-122 7

Applicant Exhibit Four, Sketch 7

Applicant Exhibit Five, Logs 11

SALLY WALTON BOYD  
CERTIFIED SHORTHAND REPORTER  
3028 Plaza Blanca (666) 471-2463  
Santa Fe, New Mexico 87501

1 MR. NUTTER: We'll call next Case Number 6418.

2 MS. TESCHENDORF: Case 6418. Application of  
3 Gulf Oil Corporation for a dual completion, Eddy County,  
4 New Mexico.

5 MR. CROSS: Terry Cross, appearing on behalf  
6 of Gulf and we have a letter of appearance from Mr. James  
7 Sperling.

8 MR. NUTTER: Right, we have that in the  
9 file.

10 MR. CROSS: I have two witnesses.

11 (Witnesses sworn.)

12  
13 RUSSELL WORLEY

14 being called as a witness and having been duly sworn upon  
15 his oath, testified as follows, to-wit:

16  
17 DIRECT EXAMINATION

18 BY MR. CROSS:

19 Q Please state your name.

20 A My name is Russell Worley.

21 Q Who are you employed with and in what capa-  
22 city are you employed?

23 A I'm employed by Gulf Oil Corporation as an  
24 engineer in the production operations.

25 Q Would you briefly summarize your educational

SALLY WALTON BOYD  
CERTIFIED INTERVIEW REPORTER  
3020 Plaza Blanca (988) 471-2402  
Santa Fe, New Mexico 87501

1 background and your engineering experience?

2 A I have a degree in geology from Centenary  
3 College. I've worked as petroleum engineer for Gulf for  
4 ten years, with the last seven years in the Permian Basin,  
5 as a Hobbs Area Completion and Remedial Engineer.

6 MR. CROSS: Mr. Examiner, is this witness  
7 qualified?

8 MR. NUTTER: Yes, he is.

9 Q (Mr. Cross continuing.) All right.

10 MR. NUTTER: Where are you located at the  
11 present time?

12 A Hobbs.

13 MR. NUTTER: Okay.

14 Q Mr. Worley, would you please state what Gulf  
15 is seeking in this application?

16 A Gulf is seeking authorization to drill and  
17 complete the Eddy "CR" State Well No. 1, located in Unit  
18 E, Section 16, Township 23 South, Range 28 East, Eddy  
19 County, New Mexico, to produce gas from the Atoka and  
20 Morrow formations through parallel tubing strings.

21 Q Referring to Gulf's Exhibit Number One,  
22 which is the OCD form C-107, Application for Multiple  
23 Completion, which is styled in connection with the subject  
24 well, will you please summarize the information for the  
25 Examiner?

SALLY WALTON BOYD  
CERTIFIED SHORTHAND REPORTER  
2020 Plaza Blanca (505) 471-4462  
Santa Fe, New Mexico 87501



1 A This form was submitted to the Commission  
2 on December 7th, 1978. The Eddy "GR" No. 1 is presently  
3 completed in the Morrow formation through selected perfor-  
4 ations from 12,256 feet to 12,364 feet as a flowing gas  
5 well.

6 We propose also to perforate the Atoka form-  
7 ation through selected perforations, 11,945 feet to 11,965  
8 feet.

9 We anticipate this zone will also be flowing  
10 gas production and we propose to complete the two zones  
11 to produce separately through parallel tubing strings.

12 Q Referring to Gulf's Exhibit Number Two,  
13 which is the OCD form C-102, would you please summarize  
14 the information contained on that form for the Examiner?

15 A The Form C-102 was filed with the OCD on  
16 June 30th, 1978. The location of the subject well is 2230  
17 feet from the north line, 660 feet from the west line in  
18 Unit E, Section 16, Township 23 South, Range 28 East,  
19 Eddy County, New Mexico.

20 Q Referring to Gulf's Exhibit Number Three,  
21 which is the OCD Form C-122, Multipoint Back Pressure Test,  
22 would you please summarize the information on that form  
23 for the Examiner?

24 A Yes. This is Gulf's Exhibit Number Three.  
25 A calculated open flow potential test was obtained on October

SALLY WALTON BOYD  
CERTIFIED SHORTHAND REPORTER  
3920 Plaza Blanca (905) 471-2452  
Santa Fe, New Mexico 87501



28th. 1978 on the Morrow formation of the subject well, indicating an absolute open flow 3089 Mcf gas per day.

Q Do you have a diagrammatical sketch which depicts the particulars of the wellbore, and if so, please explain that to the Examiner?

A Yes. This is Gulf's Exhibit Number Four. Indicates the well has 20-inch casing set at 404 feet cemented with 800 sacks, cement circulated; 13-3/8ths casing set at 2632, cemented with 1800 sacks, cement circulated; 9-5/8 casing set at 9650 with a DV tool at 4580, cemented in two stages with a total of 2550 sacks, cement circulated; 7-inch liner is set 9302 feet to a total depth of 12,710 feet, cemented with 910 sacks and cement circulated. Present plug-back depth is 12,445 feet. The Morrow zone is presently completed through gross perforations 12,256 feet to 12,364 feet.

We now propose to perforate the Atoka formation through gross perforations 11,945 feet, 11,965 feet. Atoka perforations will be accomplished using Van gun assembly which will be run with the production tubing, perforations made after both strings with packers have been positioned and set in the wellbore, Christmas tree installed, well buttoned up.

Production from the two zones will be separated by a Baker Model D packer, set at 12,180 feet, and a

SALLY WALTON BOYD  
CERTIFIED SHORTHAND REPORTER  
3030 Plaza Blanca (905) 471-2485  
Santa Fe, New Mexico 87501

1 Baker Model A-5 Dual Hydrostatic packer set at approximately  
2 11,900 feet.

3 The two formations will then be produced  
4 separately through two parallel strings of tubing, as indi-  
5 cated in Exhibit Four.

6 Q Mr. Worley, is there anything you'd like to  
7 add?

8 A Yes. Upon approval of this application and  
9 completion of the physical work the appropriate tests will  
10 be performed to determine that isolation of the two pro-  
11 ducing zones has been effective. At this time the appro-  
12 priate packer leakage tests will be submitted to the OCD.

13 Q Was Exhibit Four prepared by you or under  
14 your supervision?

15 A Yes, it was. And the OCD forms were com-  
16 pleted by the other Gulf employees.

17 MR. CROSS: Mr. Examiner, I have no further  
18 questions of this witness. I move that Gulf's Exhibits One  
19 through Four be admitted into evidence.

20 MR. NUTTER: Exhibits One through Four will  
21 be admitted in evidence.

22  
23 CROSS EXAMINATION

24 BY MR. NUTTER:

25 Q Mr. Worley, these perforations down here be-

SALLY WALTON BOYD  
CERTIFIED SHORTHAND REPORTER  
2010 Plaza Pkwy, Suite 200  
Santa Fe, New Mexico 87501

SALLY WALTON BOYD  
CERTIFIED SHORTHAND REPORTER  
3030 Palm Beach (606) 471-2402  
Santa Fe, New Mexico 87501

low the plug seal assembly in the well, are those lower  
Morrow perforations that are non-productive?

A Yes, sir, they were. They were previously  
tested and plugged back.

Q Did you have any test on the Atoka zone when  
the well was being drilled?

A No, sir, we did not. I do not remember  
whether or not we did.

Q You're operating on the appearance of the  
log, then.

A Yes, sir.

Q Now your Exhibit Number One reflects that  
the top of the perforations on the Morrow would be 257,  
12,257, but you've stated 12,256, and also Exhibit Four  
shows 12,256, so I assume that that figure should be cor-  
rected there on Exhibit One, is that correct?

A Yes, sir, that should be a typographical  
error. Let me check. It is 257, sir, the other exhibits  
are wrong.

Q Oh, I see.

MR. NUTTER: Are there any other questions  
of this witness? He may be excused.

C. D. STENBERG

being called as a witness and having been duly sworn upon

1 his oath, testified as follows, to-wit:

2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

DIRECT EXAMINATION

BY MR. CROSS:

Q Will you please state your name, your employer, location, and what capacity you are employed?

A C. D. Stenberg, employed by Gulf Oil Corporation in Midland, Texas. Geologist in their production department.

Q Have you previously qualified to testify before the Division?

A Yes.

MR. CROSS: Is the witness qualified?

MR. NUTTER: Yes, he is.

Q (Mr. Cross continuing.) Mr. Stenberg, referring to Gulf's Exhibit Number Five, would you please explain the purpose of this exhibit to the Examiner?

A Yes. Exhibit Five is a cross section A-to-A prime, which contains gamma ray neutron density and sample logs and the location plat is down at the bottom of the -- bottom lefthand corner in Sections 17, 16, and 22 of 23 South and 28 East.

The section is hung on top of the Morrow formation. I have some blue and red colored marks on the gamma ray side of the logs to show further correlation and

SALLY WALTON BOYD  
CERTIFIED SHORTHAND REPORTER  
3030 Plaza Blanca (SOS) 471-2462  
Santa Fe, New Mexico 87501

1 the well on the lefthand side is the Cities Service Polk,  
2 which is in Section 17, and the center well is the Gulf No.  
3 1 "GR" State in Section 16, and the righthand well is the  
4 Amoco No. 1 Ingles, which is in Section 22.

5 Q Referring to Exhibit Five, would you please  
6 explain on what basis the tops of the Morrow was picked?

7 A To resolve the question concerning the tops  
8 of the Morrow and the other Pennsylvanian markers, Mr.  
9 Gressett of the OCC District Supervisor at Artesia referred  
10 the Eddy State "GR" 1 Gulf Well to Mr. John Runyan, the  
11 OCC geologist in Hobbs, and it's my understanding that Mr.  
12 Runyan conferred with Ken Mellon, who's the area geologist,  
13 Gulf's area geologist at Hobbs, and between them they agreed  
14 on the formation tops as shown on Gulf's "GR" No. 1.

15 To arrive at their conclusion they used a  
16 publication titled Eddy County Nomenclature Cross Sections.  
17 This was a study prepared by an industry committee.

18 Now the tops that were agreed upon by Mr.  
19 Runyan and Ken Mellon of the Gulf office were the Strawn,  
20 as shown on the center log in the cross section at 11,166  
21 feet; the Atoka top, 11,310; and the Morrow, 11,971.

22 Now, as far as the sample log and the open  
23 hole neutron density and gamma ray logs are concerned, for  
24 agreement included the sample logs to show that the top of  
25 the Morrow agrees with -- were predominately sands, a sand

SALLY WALTON BOYD  
CERTIFIED SHORTHAND REPORTER  
3030 Plaza Blanca (606) 471-3443  
Santa Fe, New Mexico 87501

SALLY WALTON BOYD  
CERTIFIED SHORTHAND REPORTER  
3028 Plaza Blanca (666) 471-2462  
Santa Fe, New Mexico 87501

1 shale sequence of the Morrow begins, and these -- these  
2 tops agree very well with the tops that were picked on the  
3 center log by -- on the Gulf No. 1 "GR".

4 I've colored the yellow there at the top, the  
5 start of the sands for the Morrow, on the sample logs.

6 Q Mr. Stenberg, was Exhibit Five prepared by  
7 you?

8 A Yes, it was.

9 MR. CROSS: I have no further questions of  
10 this witness and I move that Gulf's Exhibit Number Five  
11 be admitted.

12 MR. NUTTER: Exhibit Five will be admitted  
13 in evidence.

14  
15 CROSS EXAMINATION

16 BY MR. NUTTER:

17 Q Mr. Stenberg, now the proposed Atoka com-  
18 pletion is here at 11,945 to 65 on this cross section.

19 A Yes, sir.

20 Q And what is that Morrow top picked at again?  
21 What was the agreement on the top?

22 A 11,971.

23 Q So we would have to call this Lower Atoka,  
24 I presume.

25 A Yes, sir, from the information I have and

1 from the correlations, it would be Low Atoka.

2 Q Very low.

3 A Very, very low Atoka. I would like to add  
4 one more thing, note on the righthand log, the Amoco Ingles  
5 log, the operator top of the Morrow they picked -- I got  
6 this information from the scout cards -- at 12,390.

7 Q Uh-huh, so that may not have been picked --  
8 or that obviously wasn't picked by the same people who  
9 picked the top for your well.

10 A No, sir. The way they're depicted here is  
11 the way Gulf both exploration and production geologists  
12 picked the top of the Morrow, predominantly, generally with  
13 the aid of sample logs where you began picking up the Mor-  
14 row sands.

15 Q There's been a lot of questions about the  
16 tops out there in that country; that's why we have those  
17 cross sections.

18 MR. NUTTER: Are there further questions of  
19 this witness? He may be excused.

20 Do you have anything further, Mr. Cross.

21 MR. CROSS: No, sir, we don't.

22 MR. NUTTER: Does anyone have anything they  
23 wish to offer in Case Number 6418?

24 We'll take the case under advisement.

25 (Hearing concluded.)

SALLY WALTON BOYD  
CERTIFIED SHORTHAND REPORTER  
3020 Plaza Blanca (SOS) 471-2462  
Santa Fe, New Mexico 87501




## REPORTER'S CERTIFICATE

I, SALLY W. BOYD, a Court Reporter, DO HEREBY  
CERTIFY that the foregoing and attached Transcript of  
Hearing before the Oil Conservation Division was reported  
by me; that said transcript is a full, true, and correct  
record of the hearing, prepared by me to the best of my  
ability, knowledge, and skill, from my notes taken at the  
time of the hearing.

Sally W. Boyd, C.S.R.

I do hereby certify that the foregoing is  
a complete and correct transcript of the proceedings in  
the examination hearing of Case No. 6418  
heard by me on 1/17 1979

  
Oil Conservation Division, Examiner

SALLY WALTON BOYD  
CERTIFIED SHORTHAND REPORTER  
2028 Plaza Alamosa (SOS) 471-2452  
Santa Fe, New Mexico 87501





STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
DIVISION FOR THE PURPOSE OF  
CONSIDERING:

CASE NO. 6418  
Order No. R-5914

APPLICATION OF GULF OIL  
CORPORATION FOR A DUAL  
COMPLETION, EDDY COUNTY,  
NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 o'clock a.m. on January 17, 1979, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 23rd day of January, 1979, the Division Director, 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 Division has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Gulf Oil Corporation, seeks authority to complete its Eddy "GR" State Well No. 1, located in Unit E of Section 16, Township 23 South, Range 28 East, NMPM, Eddy County, New Mexico, as a dual completion (conventional) to produce gas from the Atoka and Morrow formations through parallel strings of tubing.

(3) That the mechanics of the proposed dual completion are feasible and in accord with good conservation practices.

(4) That approval of the subject application will prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Gulf Oil Corporation, is hereby

-2-

Case No. 6418  
Order No. R-5914

authorized to complete its Eddy "GR" State Well No. 1, located in Unit E of Section 16, Township 23 South, Range 28 East, NMPM, Eddy County, New Mexico, as a dual completion (conventional) to produce gas from the Atoka and Morrow formations through parallel strings of tubing with separation of the zones achieved by means of a packer set at approximately 12,180 feet.

PROVIDED HOWEVER, that the applicant shall complete, operate, and produce said well in accordance with the provisions of Rule 112-A of the Division Rules and Regulations insofar as said rule is not inconsistent with this order;

PROVIDED FURTHER, that the applicant shall take packer leakage tests upon completion and annually thereafter during the Annual Shut-in Pressure Test Period for the Morrow zone.

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

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

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION



*Joe D. Ramey*  
JOE D. RAMEY,  
Director

dr/

NEW MEXICO OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO  
APPLICATION FOR MULTIPLE COMPLETION

Form C-107  
5-1-61

Operator <b>GULF OIL CORPORATION</b>		County <b>Eddy</b>	Date <b>12-07-78</b>
Address <b>P. O. Box 670, Hobbs, New Mexico 88240</b>		Lease <b>Eddy "GR" State</b>	Well No. <b>1</b>
Location of Well <b>E</b>	Section <b>16</b>	Township <b>23 South</b>	Range <b>28 East</b>

1. Has the New Mexico Oil Conservation Commission heretofore authorized the multiple completion of a well in these same pools or in the same zones within one mile of the subject well? YES \_\_\_\_\_ NO **X**
2. If answer is yes, identify one such instance: Order No. \_\_\_\_\_; Operator Lease, and Well No.: \_\_\_\_\_

3. The following facts are submitted:	Upper Zone	Intermediate Zone	Lower Zone
a. Name of Pool and Formation	<b>Atoka</b>		<b>Morrow</b>
b. Top and Bottom of Pay Section (Perforations)	<b>11,945' - 11,965'</b>		<b>12,257' - 12,364'</b>
c. Type of production (Oil or Gas)	<b>Gas</b>		<b>Gas</b>
d. Method of Production (Flowing or Artificial Lift)	<b>Flowing</b>		<b>Flowing</b>

4. The following are attached. (Please check YES or NO)

- |                                     |                                     |  |
|-------------------------------------|-------------------------------------|--|
| Yes                                 | No                                  |  |
| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | a. Diagrammatic Sketch of the Multiple Completion, showing all casing strings, including diameters and setting depths, completions and/or turbolizers and location thereof, quantities used and top of cement, perforated intervals, tubing strings, including diameters and setting depth, location and type of packers and side-door chokes, and such other information as may be pertinent. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | b. Plat showing the location of all wells on applicant's lease, all offset wells on offset leases, and the names and addresses of operators of all leases offsetting applicant's lease.  |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | c. Waivers consenting to such multiple completion from each offset operator, or in lieu thereof, evidence that said offset operators have been furnished copies of the application.  |
| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | d. Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed it shall be submitted as provided by Rule 112.)  |

5. List all offset operators to the lease on which this well is located together with their correct mailing address.

**Amoco Production Company - P. O. Box 3092, Houston, Texas 77001**

**Cities Service Oil Company - P. O. Box 1919, Midland, Texas 79701**

6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES **XX** NO \_\_\_\_ . If answer is yes, give date of such notification **12-07-78**

CERTIFICATE: I, the undersigned, state that I am the **Area Engineer** of the **GULF OIL CORPORATION** (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

BEFORE EXAMINER NUTTER

OIL CONSERVATION DIVISION

Gulf EXHIBIT NO. 1

*N. B. Sikes, Jr.*  
Signature

\*Should waivers from all offset operators not accompany an application for administrative approval, the New Mexico Oil Conservation Commission will hold the application for a period of twenty (20) days from date of receipt by the Commission's Santa Fe office. If, after said twenty-day period, no protest nor request for hearing is received by the Santa Fe office, the application will then be processed.

NOTE: If the proposed multiple completion will result in an unorthodox well location and/or a non-standard perforation unit in one or more of the zones, the applicant should file a separate application for such completion simultaneously with this application.

NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-101  
Supersedes C-128  
Effective 1-1-65

All distances must be from the outer boundaries of the Section

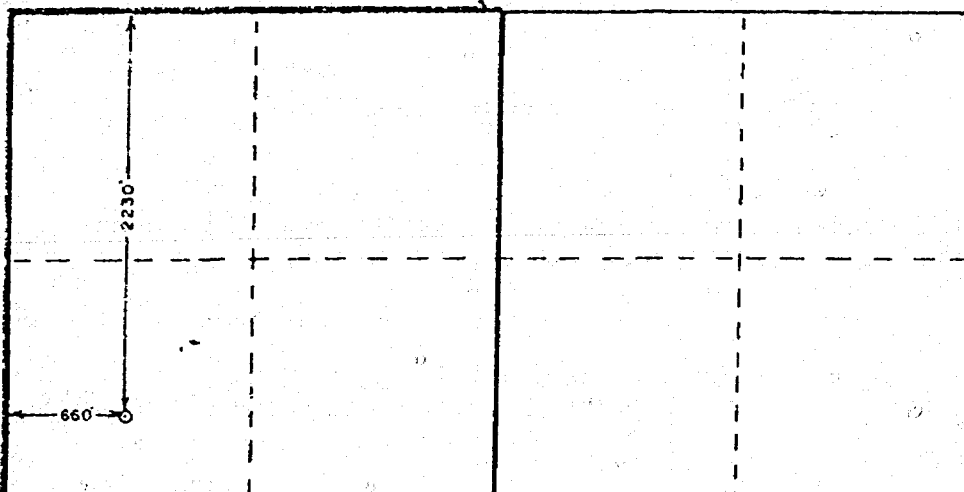
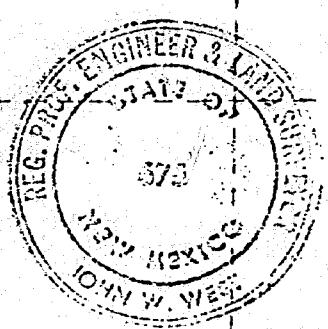
Lessor <b>Gulf Oil Corp.</b>		Lessee <b>Eddy G.R. State</b>		Well No. <b>1</b>
Unit Letter <b>E</b>	Section <b>16</b>	Township <b>23 South</b>	Range <b>28 East</b>	County <b>Eddy</b>
Actual Footage Location of Well: <b>2230</b> feet from the <b>North</b> line and <b>660</b> feet from the <b>West</b> line				
Ground Level Elev. <b>3020.85</b>	Producing Formation <b>Morrow</b>	Pool <b>Undesignated Morrow</b>	Dedicated Acreage: <b>320</b> Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation \_\_\_\_\_

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) \_\_\_\_\_

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.

	
<b>GULF OIL CORPORATION</b>	
	
<b>REGISTRAR NUTTER</b> OIL CONSERVATION DIVISION Gulf EXHIBIT NO. 2 CASE NO. 648	

CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

*C. D. Borland*

Name

**C. D. BORLAND**

Position

**Area Production Manager**

Company

**GULF OIL CORPORATION**

Date

**July 14, 1978**

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

**June 30, 1978**

Registered Professional Engineer  
and/or Land Surveyor

*John W. West*

Certificate No. **John W. West**

**676**

**Ronald J. Eldon 3239**

11 850 90 1320 1580 1840 2310 2510 2000 1800 1000 500 0

**NEW MEXICO OIL CONSERVATION COMMISSION**  
**MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL**

Form C-122  
Revised 9-1-65

Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special				Test Date 10/28/78		SPUD : 7/28/78	
Company GULF OIL CORP.				Connection AIR			
Pool UNDESIGNATED				Formation MORROW		Unit E	
Completion Date 10/24/78		Total Depth 12710		Plug Back TD 12445		Elevation 3021	
Csg. Size 7		Wt. 26		Set At 12188		Perforations: From 12257 To 12364	
Tub. Size 2 7/8		Wt. 6.5		Set At 12188		Perforations: From To	
Type Well - Single - Staggerhead - G.C. or G.O. Multiple SINGLE				Packer Set At 12180		County EDDY	
Producing Thru TBG.		Reservoir Temp. °F 196 ° 12188		Mech. Annual Temp. °F 60 °		Baro. Press. - P <sub>a</sub> 13.2	
L 12188		H 12188		G <sub>g</sub> .701		% CO <sub>2</sub> 1.520	
				% N <sub>2</sub> 16.771		% H <sub>2</sub> S	
				Prover		Meter Run 4"	
						Taps FLG.	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h <sub>w</sub>	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
SI							4049				72 Hr.
1.	4 X 2.000			520	6.0	72	3368				1 Hr.
2.	4 X 2.000			530	10.0	77	2765				1 Hr.
3.	4 X 2.000			530	16.0	75	1910				1 Hr.
4.	4 X 2.000			530	26.0	76	920				1 Hr.
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P <sub>m</sub>	Flow Temp. Factor Ft.	Gravity Factor F <sub>g</sub>	Super. Compress. Factor, F <sub>pv</sub>	Rate of Flow Q, Mcfd
1	19.81	56.56	533.2	.9887	1.194	1.062	1405
2	19.81	73.70	543.2	.9840	1.194	1.061	1820
3	19.81	93.23	543.2	.9859	1.194	1.063	2311
4	19.81	118.84	543.2	.9850	1.194	1.061	2938
5							

NO.	P <sub>i</sub>	Temp. °R	T <sub>i</sub>	Z	Gas Liquid Hydrocarbon Ratio	Mcft/bbl.
1.	.80	532	1.36	.886	DRY	
2.	.81	537	1.37	.888		
3.	.81	535	1.36	.885		
4.	.81	536	1.37	.888		
5.						

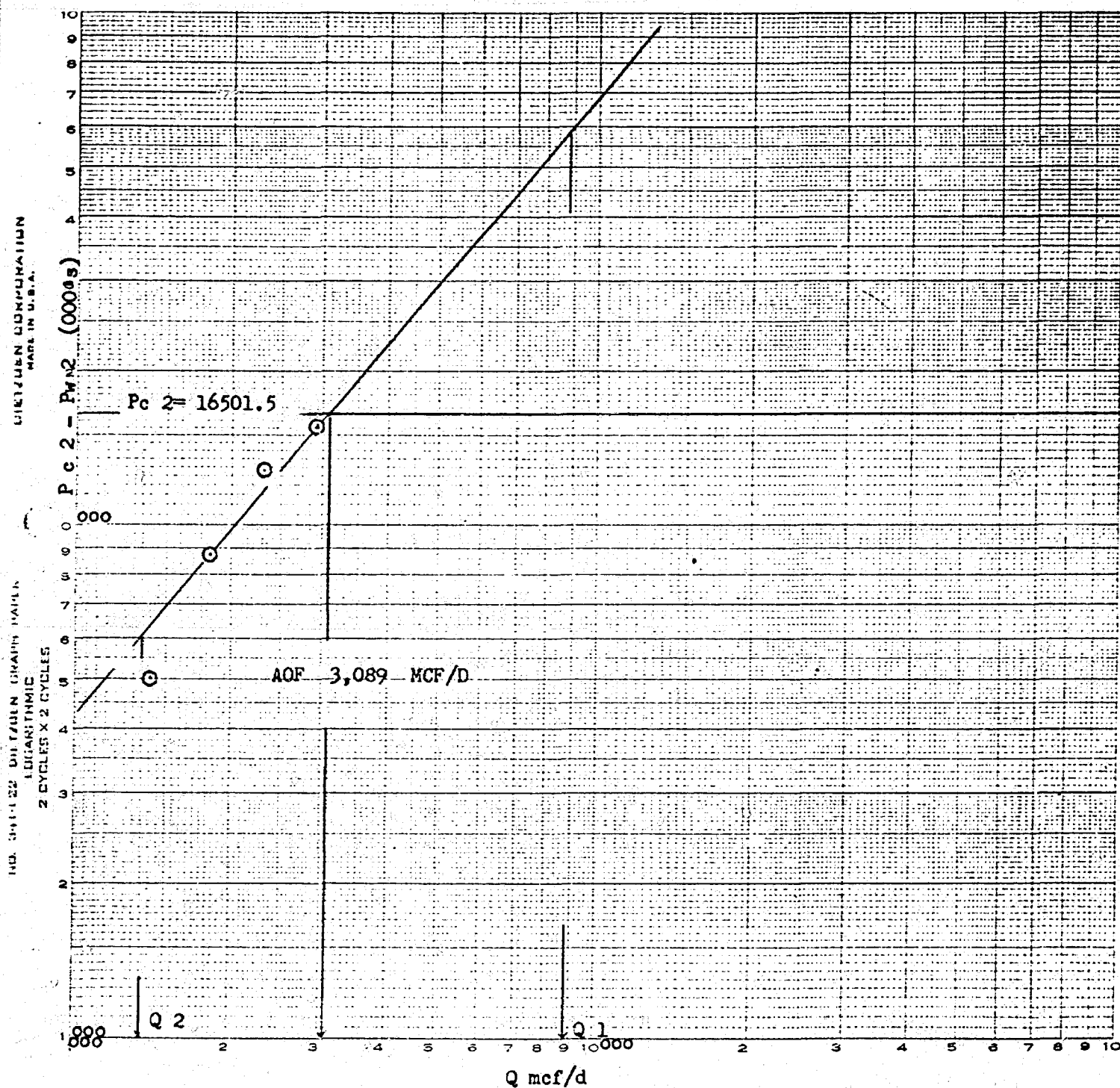
P <sub>c</sub> 4062.2    P <sub>c</sub> <sup>2</sup> 16501.5				(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.063$ (2) $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.051$	
NO.	P <sub>w</sub>	P <sub>w</sub> <sup>2</sup>	P <sub>w</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup>		
1	3386.5	11468.4	5033.1		
2	2786.9	7766.8	8734.7		
3	1939.7	3762.4	12739.0		
4	991.1	982.3	15519.2		
5					

$ADP = Q \left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3.089$				Absolute Open Flow 3,089    Mcfd @ 15.025    Angle of Slope 50.75°    Slope, n .814	
Remarks: Gulf 3					
6418					
Approved By Commission:		Conducted By:		Checked By:	
		[Signature]		[Signature]	



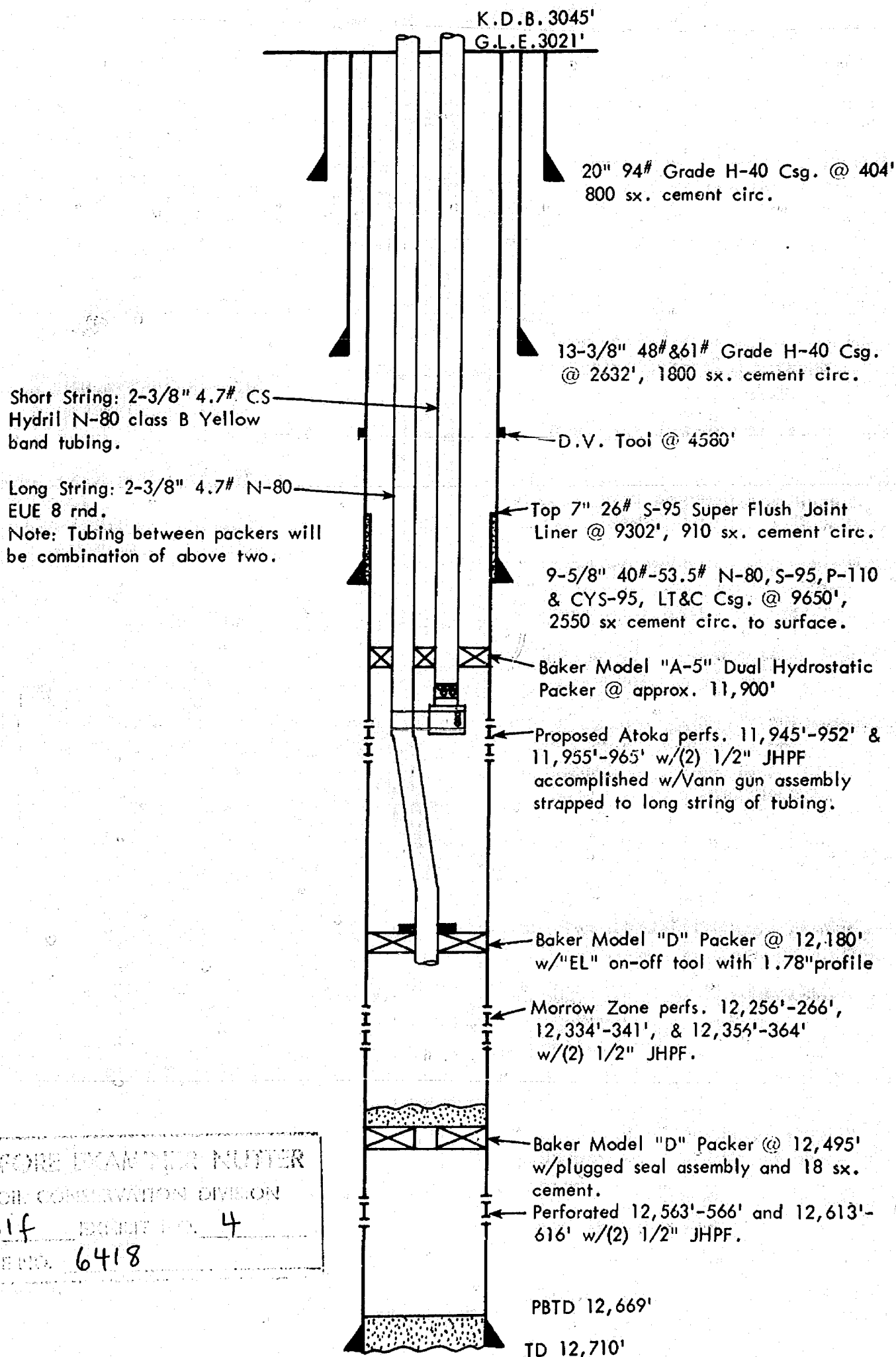
COMPANY : GULF OIL COP  
 LEASE : EDDY GR STA1. COM.  
 WELL NO : # 1  
 FIELD : UNIT E 16-23-28  
 COUNTY : EDDY  
 DATE : 10-28-78



Q 1 = 8800 ; LOG OF Q 1 3.9444483  
 Q 2 = 1350 ; LOG OF Q 2 3.130334  
 N .814

Exhibit No.

EDDY "GR" STATE WELL NO. 1  
PROPOSED DUAL COMPLETION  
Case No. 6418 January 17, 1979  
Gulf Oil Corporation



BEFORE EXAMINER MUTTER  
OIL CONSERVATION DIVISION  
Gulf EXHIBIT NO. 4  
CASE NO. 6418



NEW MEXICO OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO  
APPLICATION FOR MULTIPLE COMPLETION

Form C-107  
5-1-61

Operator <b>GULF OIL CORPORATION</b>		County <b>Eddy</b>	Date <b>12-07-78</b>
Address <b>P. O. Box 670, Hobbs, New Mexico 88240</b>		Lease <b>Eddy "GR" State</b>	Well No. <b>1</b>
Location of Well <b>E</b>	Section <b>16</b>	Township <b>23 South</b>	Range <b>28 East</b>

1. Has the New Mexico Oil Conservation Commission heretofore authorized the multiple completion of a well in these same pools or in the same zones within one mile of the subject well? YES \_\_\_\_\_ NO **X**
2. If answer is yes, identify one such instance: Order No. \_\_\_\_\_; Operator Lease, and Well No.: \_\_\_\_\_

3. The following facts are submitted:	Upper Zone	Intermediate Zone	Lower Zone
a. Name of Pool and Formation	<b>Atoka</b>		<b>Morrow</b>
b. Top and Bottom of Pay Section (Perforations)	<b>11,945' - 11,965'</b>		<b>12,257' - 12,364'</b>
c. Type of production (Oil or Gas)	<b>Gas</b>		<b>Gas</b>
d. Method of Production (Flowing or Artificial Lift)	<b>Flowing</b>		<b>Flowing</b>

4. The following are attached. (Please check YES or NO)

- |   |                                     |  |
|---|-------------------------------------|--|
| Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>         | a. Diagrammatic Sketch of the Multiple Completion, showing all casing strings, including diameters and setting depths, cementizers and/or turbolizers and location thereof, quantities used and top of cement, perforated intervals, tubing strings, including diameters and setting depth, location and type of packers and side door chokes, and such other information as may be pertinent. |
| <input checked="" type="checkbox"/>     | <input type="checkbox"/>            | b. Plat showing the location of all wells on applicant's lease, all offset wells on offset leases, and the names and addresses of operators of all leases offsetting applicant's lease.  |
| <input type="checkbox"/>                | <input checked="" type="checkbox"/> | c. Waivers consenting to such multiple completion from each offset operator, or in lieu thereof, evidence that said offset operators have been furnished copies of the application.  |
| <input checked="" type="checkbox"/>     | <input type="checkbox"/>            | d. Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed it shall be submitted as provided by Rule 112)   |

5. List all offset operators to the lease on which this well is located together with their correct mailing address.

**Amoco Production Company - P. O. Box 3092, Houston, Texas 77001**

**Cities Service Oil Company - P. O. Box 1919, Midland, Texas 79701**

6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES **X** NO \_\_\_\_\_. If answer is yes, give date of such notification **12-07-78**

CERTIFICATE: I, the undersigned, state that I am the **Area Engineer** of the **GULF OIL CORPORATION** (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts therein are true, correct and complete to the best of my knowledge.

**BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION**

**Gulf EXHIBIT NO. 1**

**N. B. Sikes, Jr.**  
Signature

\*Should any operator not appearing on application for administrative approval, the New Mexico Oil Conservation Commission will hold the application for a period of twenty (20) days from date of receipt by the Commission's Santa Fe office. If, after said two-day period, no protest nor request for hearing is received by the Santa Fe office, the application will then be processed.

NOTE: If the proposed multiple completion will result in an unorthodox well location and/or a non-standard perforation unit in one or more cases, the applicant shall file a separate application for such cases simultaneously with this application.

NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102  
Supersedes C-128  
Effective 1-1-65

All distances must be from the outer boundaries of the Section

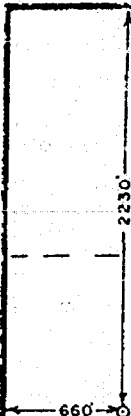
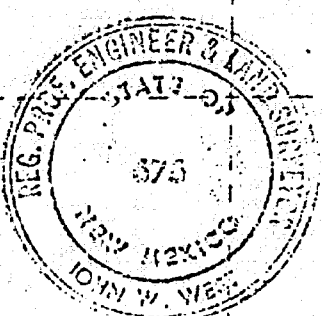
Operator <b>Gulf Oil Corp.</b>			Lease <b>Eddy G.R. State</b>			Well No. <b>1</b>
Unit Letter <b>E</b>	Section <b>16</b>	Township <b>23 South</b>	Range <b>28 East</b>	County <b>Eddy</b>		
Actual Footage Location of Well: <b>2230</b> feet from the <b>North</b> line and <b>660</b> feet from the <b>West</b> line						
Ground Level Elev. <b>3020.85</b>	Producing Formation <b>Morrow</b>		Pool <b>Undesignated Morrow</b>		Dedicated Acreage: <b>320</b> Acres	

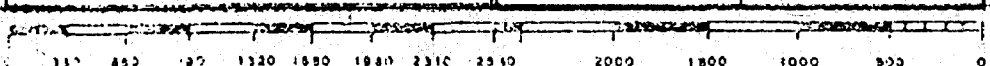
1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation \_\_\_\_\_

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) \_\_\_\_\_

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.

		<p><b>GULF OIL CORPORATION</b></p> 	
<p>BEFORE EXAMINER NUTTER</p> <p>OIL CONSERVATION DIVISION</p> <p><b>Gulf</b> EXHIBIT NO. <b>2</b></p> <p>CASE NO. <b>6418</b></p>		<p><b>CERTIFICATION</b></p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>C. D. Borland</i></p> <p>Name <b>C. D. BORLAND</b></p> <p>Position <b>Area Production Manager</b></p> <p>Company <b>GULF OIL CORPORATION</b></p> <p>Date <b>July 14, 1978</b></p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.</p> <p>Date Surveyed <b>June 30, 1978</b></p> <p>Registered Professional Engineer and/or Land Surveyor <i>John W. West</i></p> <p>Certificate No. <b>John W. West 676</b> <b>Ronald J. Eidson 3239</b></p>	



**NEW MEXICO OIL CONSERVATION COMMISSION**  
**MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL**

Form C-122  
 Revised 9-1-65

Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special				Test Date <b>10/28/78</b>		SPUD : <b>7/28/78</b>	
Company <b>GULF OIL CORP.</b>				Connection <b>AIR</b>			
Pool <b>UNDESIGNATED</b>				Formation <b>MORROW</b>		Unit <b>E</b>	
Completion Date <b>10/24/78</b>		Total Depth <b>12710</b>		Plug Back TD <b>12445</b>		Elevation <b>3021</b>	
Farm or Lease Name <b>EDDY G R STATE COM.</b>				Well No. <b># 1</b>			
Csg. Size <b>7</b>	Wt. <b>26</b>	d <b>6.5</b>	Set At <b>12188</b>	Perforations: From <b>12257</b> To <b>12364</b>		Unit Sec. Twp. Rge. <b>E 16 23 28</b>	
Type Well - Single - Blindhead - G.G. or G.O. Multiple <b>SINGLE</b>				Packer Set At <b>12180</b>		County <b>EDDY</b>	
Producing Thru <b>TBG.</b>		Reservoir Temp. °F <b>196 ° 12188</b>		Mean Annual Temp. °F <b>60 °</b>		Baro. Press. - P <sub>a</sub> <b>13.2</b>	
L <b>12188</b>		H <b>12188</b>	G <sub>g</sub> <b>.701</b>	% CO <sub>2</sub> <b>1.520</b>	% N <sub>2</sub> <b>16.771</b>	% H <sub>2</sub> S <b></b>	Prover <b></b>
						Meter Run <b>4"</b>	
						Tags <b>FLG.</b>	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h <sub>w</sub>	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
SI							<b>4049</b>				<b>72 Hr.</b>
1.	<b>4 X 2,000</b>			<b>520</b>	<b>6.0</b>	<b>72</b>	<b>3368</b>				<b>1 Hr.</b>
2.	<b>4 X 2,000</b>			<b>530</b>	<b>10.0</b>	<b>77</b>	<b>2765</b>				<b>1 Hr.</b>
3.	<b>4 X 2,000</b>			<b>530</b>	<b>16.0</b>	<b>75</b>	<b>1910</b>				<b>1 Hr.</b>
4.	<b>4 X 2,000</b>			<b>530</b>	<b>26.0</b>	<b>76</b>	<b>920</b>				<b>1 Hr.</b>
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P <sub>m</sub>	Flow Temp. Factor F <sub>t</sub>	Gravity Factor F <sub>g</sub>	Super Compress. Factor, F <sub>pv</sub>	Rate of Flow Q, Mcfd
1	<b>19.81</b>	<b>56.56</b>	<b>533.2</b>	<b>.9887</b>	<b>1.194</b>	<b>1.062</b>	<b>1405</b>
2	<b>19.81</b>	<b>73.70</b>	<b>543.2</b>	<b>.9840</b>	<b>1.194</b>	<b>1.061</b>	<b>1820</b>
3	<b>19.81</b>	<b>93.23</b>	<b>543.2</b>	<b>.9859</b>	<b>1.194</b>	<b>1.063</b>	<b>2311</b>
4	<b>19.81</b>	<b>118.84</b>	<b>543.2</b>	<b>.9850</b>	<b>1.194</b>	<b>1.061</b>	<b>2938</b>
5							

NO.	P <sub>r</sub>	Temp. °R	T <sub>r</sub>	Z	Gas Liquid Hydrocarbon Ratio	DRY	Mcf/bbl.
1.	<b>.80</b>	<b>532</b>	<b>1.36</b>	<b>.886</b>	A.P.I. Gravity of Liquid Hydrocarbons		<b>Desq.</b>
2.	<b>.81</b>	<b>537</b>	<b>1.37</b>	<b>.888</b>	Specific Gravity Separator Gas		<b>.701</b>
3.	<b>.81</b>	<b>535</b>	<b>1.36</b>	<b>.885</b>	Specific Gravity Flowing Fluid		<b>X X X X X</b>
4.	<b>.81</b>	<b>536</b>	<b>1.37</b>	<b>.888</b>	Critical Pressure		<b>668</b>
5.					Critical Temperature		<b>392</b>

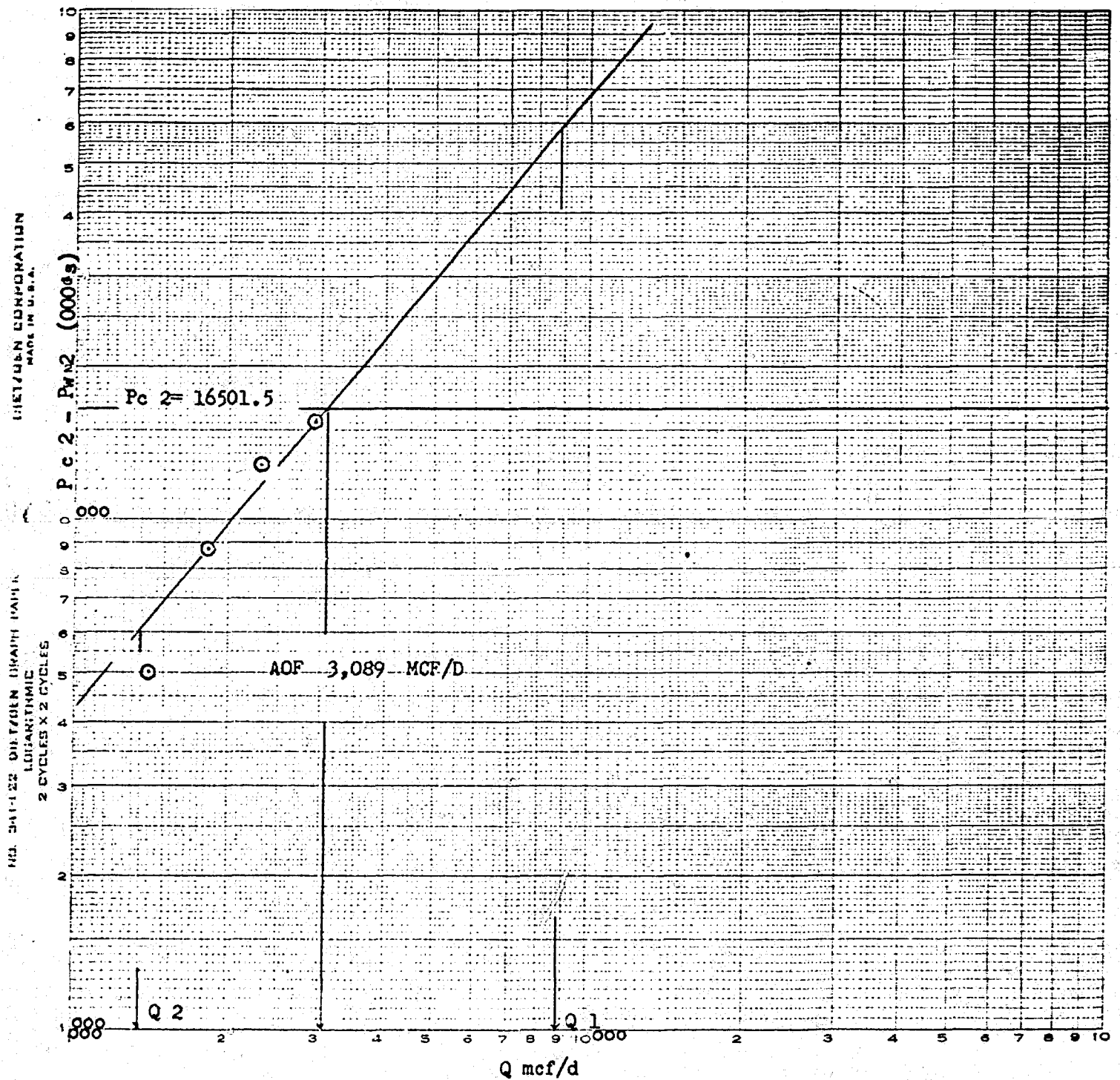
  

NO.	P <sub>r</sub>	P <sub>w</sub>	P <sub>r</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup>	(1) $\frac{P_r^2}{P_r^2 - P_w^2} =$	(2) $\left[ \frac{P_r^2}{P_r^2 - P_w^2} \right]^n =$
1		<b>3386.5</b>	<b>11468.4</b>	<b>1.063</b>	<b>1.051</b>
2		<b>2786.9</b>	<b>7766.8</b>		
3		<b>1939.7</b>	<b>3762.4</b>		
4		<b>991.1</b>	<b>982.3</b>		
5					

Absolute Open Flow <b>3,089</b>		Mcf @ 15.025	Angle of Slope <b>50.75°</b>	Slope, n <b>.814</b>
Approved By Commission: <b>Gulf Exhibit NO. 3</b> Conducted By: <i>[Signature]</i> Calculated By: <i>[Signature]</i> Checked By: <i>[Signature]</i>				

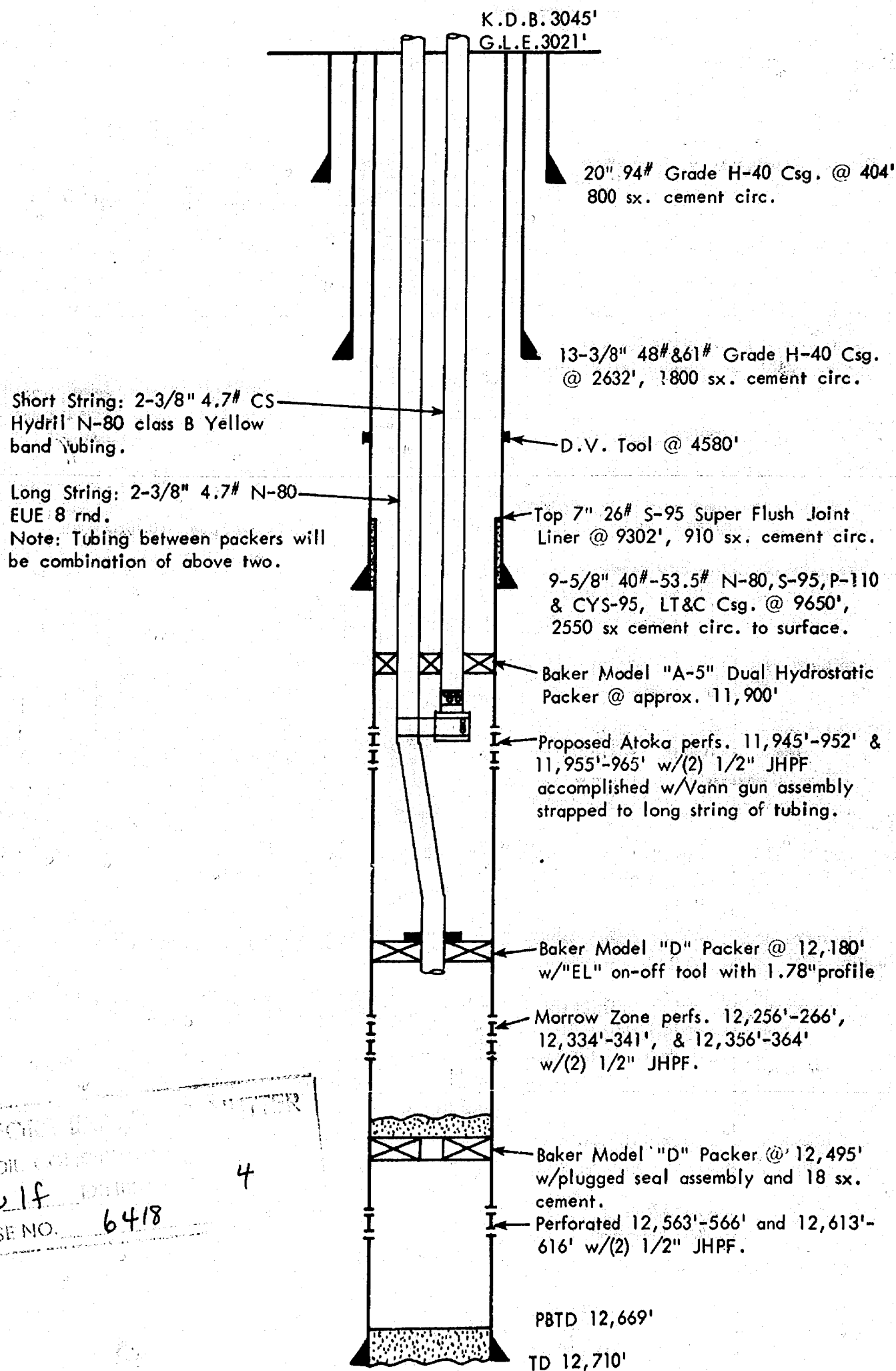
COMPANY : GULF OIL COY  
 LEASE : EDDY GR STA1 COM.  
 WELL NO : # 1  
 FIELD : UNIT E 16-23-28  
 COUNTY : EDDY  
 DATE : 10-28-78



Q 1 = 8800 ; LOG OF Q 1 3.944483  
 Q 2 = 1350 ; LOG OF Q 2 3.130334  
 N .814

Exhibit No.

EDDY "GR" STATE WELL NO. 1  
PROPOSED DUAL COMPLETION  
Case No. 6418 January 17, 1979  
Gulf Oil Corporation



BEFORE RE-ENTRY  
OIL CORPORATION  
Gulf  
CASE NO. 6418  
4



NEW MEXICO OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO  
APPLICATION FOR MULTIPLE COMPLETION

Form C-107  
5-1-61

Operator <b>GULF OIL CORPORATION</b>		County <b>Eddy</b>	Date <b>12-07-78</b>
Address <b>P. O. Box 670, Hobbs, New Mexico 88240</b>		Lease <b>Eddy "GR" State</b>	Well No. <b>1</b>
Location of Well Section <b>E</b>	Section <b>16</b>	Township <b>23 South</b>	Range <b>28 East</b>

1. Has the New Mexico Oil Conservation Commission heretofore authorized the multiple completion of a well in these same pools or in the same zones within one mile of the subject well? YES \_\_\_\_\_ NO **X**
2. If answer is yes, identify one such instance: Order No. \_\_\_\_\_; Operator Lease, and Well No.: \_\_\_\_\_

5. The following facts are submitted:	Upper Zone	Intermediate Zone	Lower Zone
a. Name of Pool and Formation	<b>Atoka</b>		<b>12,257' Morrow</b>
b. Top and Bottom of Pay Section (Perforations)	<b>11,945' - 11,965'</b>		<b>12,256' - 12,364'</b>
c. Type of production (Oil or Gas)	<b>Gas</b>		<b>Gas</b>
d. Method of Production (Flowing or Artificial Lift)	<b>Flowing</b>		<b>Flowing</b>

4. The following are attached. (Please check YES or NO)

- |                                     |                                     |   |
|-------------------------------------|-------------------------------------|---|
| Yes                                 | No                                  |   |
| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | a. Diagrammatic Sketch of the Multiple Completion, showing all casing strings, including diameters and setting depths, cementizers and/or turbolizers and location thereof, quantities used and top of cement, perforated intervals, tubing strings, including diameters and setting depth, location and type of packers and side door chokes, and such other information as may be pertinent to the operation of the well. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | b. Plat showing the location of all wells on applicant's lease, all offset wells or offset leases, and the names and addresses of operators of all leases offsetting applicant's lease.   |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | c. Waivers consenting to such multiple completion from each offset operator, or in lieu thereof, evidence that said offset operators have been furnished copies of the application.   |
| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | d. Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed it shall be submitted as provided by Rule 112.)   |

5. List all offset operators to the lease on which this well is located together with their correct mailing address.

**Amoco Production Company - P. O. Box 3092, Houston, Texas 77001**

**Cities Service Oil Company - P. O. Box 1919, Midland, Texas 79701**

6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES **XX** NO \_\_\_\_\_. If answer is yes, give date of such notification **12-07-78**

CERTIFICATE: I, the undersigned, state that I am the **Area Engineer** of the **GULF OIL CORPORATION** (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

OIL CONSERVATION DIVISION

**Gulf** EXHIBIT NO. **1**

**N. B. Sikes, Jr.**  
Signature

\*Should all offset operators not agree to the application for administrative approval, the New Mexico Oil Conservation Commission will hold the application for a period of twenty (20) days from date of receipt by the Commission's Santa Fe office. If, after said two-day period, no protest nor request for hearing is received by the Santa Fe office, the application will then be processed.

NOTE: If the proposed multiple completion will result in an unorthodox well location and/or a non-standard perforation unit in one or more of the zones, the application should be filed simultaneously with this application.

NE( EXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102  
Supersedes C-128  
Effective 1-1-65

All distances must be from the outer boundaries of the Section

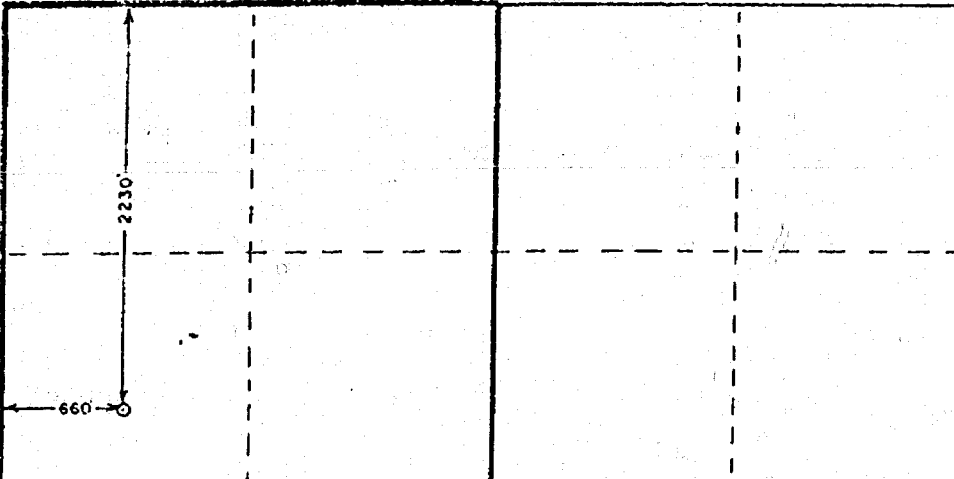
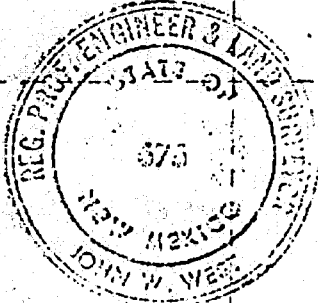
Operator <b>Gulf Oil Corp.</b>			Lease <b>Eddy G.R. State</b>			Well No. <b>1</b>
Unit Letter <b>E</b>	Section <b>16</b>	Township <b>23 South</b>	Range <b>28 East</b>	County <b>Eddy</b>		
Actual Footage Location of Well: <b>2230</b> feet from the <b>North</b> line and <b>660</b> feet from the <b>West</b> line						
Ground Level Elev. <b>3020.85</b>	Producing Formation <b>Morrow</b>		Pool <b>Undesignated Morrow</b>		Dedicated Acreage: <b>320</b> Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes;" type of consolidation \_\_\_\_\_

If answer is "no;" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) \_\_\_\_\_

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.

	
<b>GULF OIL CORPORATION</b>	
	
<b>BEFORE EXAMINER NUTTER</b> OIL CONSERVATION DIVISION <b>Gulf EXHIBIT NO. 2</b> <b>CASE NO. 6418</b>	

CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

*C. D. Borland*

Name

**C. D. BORLAND**

Position

**Area Production Manager**

Company

**GULF OIL CORPORATION**

Date

**July 14, 1978**

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

**June 30, 1978**

Registered Professional Engineer and/or Land Surveyor

*John W. West*

Certificate No.

**John W. West**

**676**

**Ronald J. Eldon**

**3234**

33' 800 1600 2400 3200 4000 4800 5600 6400 7200 8000 8800 9600 10400 11200 12000



# NEW MEXICO OIL CONSERVATION COMMISSION MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122  
Revised 9-1-65

Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special		Test Date 10/28/78		SPUD : 7/28/78	
Company GULF OIL CORP.			Connection AIR		
Pool UNDESIGNATED			MORROW		
Completion Date 10/24/78		Total Depth 12710		Plug Back TD 12445	
Csg. Size 7		WI. 26		Elevation 3021	
Tbg. Size 2 7/8		WI. 6.5		Perforations: From 12257 To 12364	
Type Well - Single		Packer Set At 12180		Well No. # 1	
Producing Thru TBG.		Reservoir Temp. °F 196 ° 12188		Mean Annual Temp. °F 60 °	
Baro. Press. - P <sub>g</sub> 13.2		County EDDY		State NEW MEXICO	
L 12188		H 12188		G <sub>g</sub> .701	
% CO <sub>2</sub> 1.520		% N <sub>2</sub> 16.771		% H <sub>2</sub> S Prover	
Meter Run 4"		Caps FLG.			

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h <sub>w</sub>	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
SI							4049				72 Hr.
1.	4 X 2,000			520	6.0	72	3368				1 Hr.
2.	4 X 2,000			530	10.0	77	2765				1 Hr.
3.	4 X 2,000			530	16.0	75	1910				1 Hr.
4.	4 X 2,000			530	26.0	76	920				1 Hr.
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P <sub>m</sub>	Flow Temp. Factor Ft.	Gravity Factor F <sub>g</sub>	Super Compress. Factor, F <sub>pv</sub>	Rate of Flow Q, Mcfd
1	19.81	56.56	533.2	.9887	1.194	1.062	1405
2	19.81	73.70	543.2	.9860	1.194	1.061	1820
3	19.81	93.23	543.2	.9859	1.194	1.063	2311
4	19.81	118.84	543.2	.9850	1.194	1.061	2938
5							

NO.	P <sub>1</sub>	Temp. °R	T <sub>1</sub>	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1.	.80	532	1.36	.886	DRY		.701		668	392
2.	.81	537	1.37	.888						
3.	.81	535	1.36	.885						
4.	.81	536	1.37	.888						
5.										

NO.	P <sub>1</sub>	P <sub>2</sub>	P <sub>3</sub>	P <sub>4</sub>	P <sub>5</sub>	P <sub>6</sub>	P <sub>7</sub>	P <sub>8</sub>	P <sub>9</sub>	P <sub>10</sub>
1		3386.5	11468.4	5033.1						
2		2786.9	7766.8	8734.7						
3		1939.7	3762.4	12739.0						
4		991.1	982.3	15519.2						
5										

$P_1 = 4062.2$   $P_2 = 16501.5$

$(1) \frac{P_1^2}{P_2^2 - P_1^2} = 1.063$   $(2) \left[ \frac{P_1^2}{P_2^2 - P_1^2} \right]^n = 1.051$

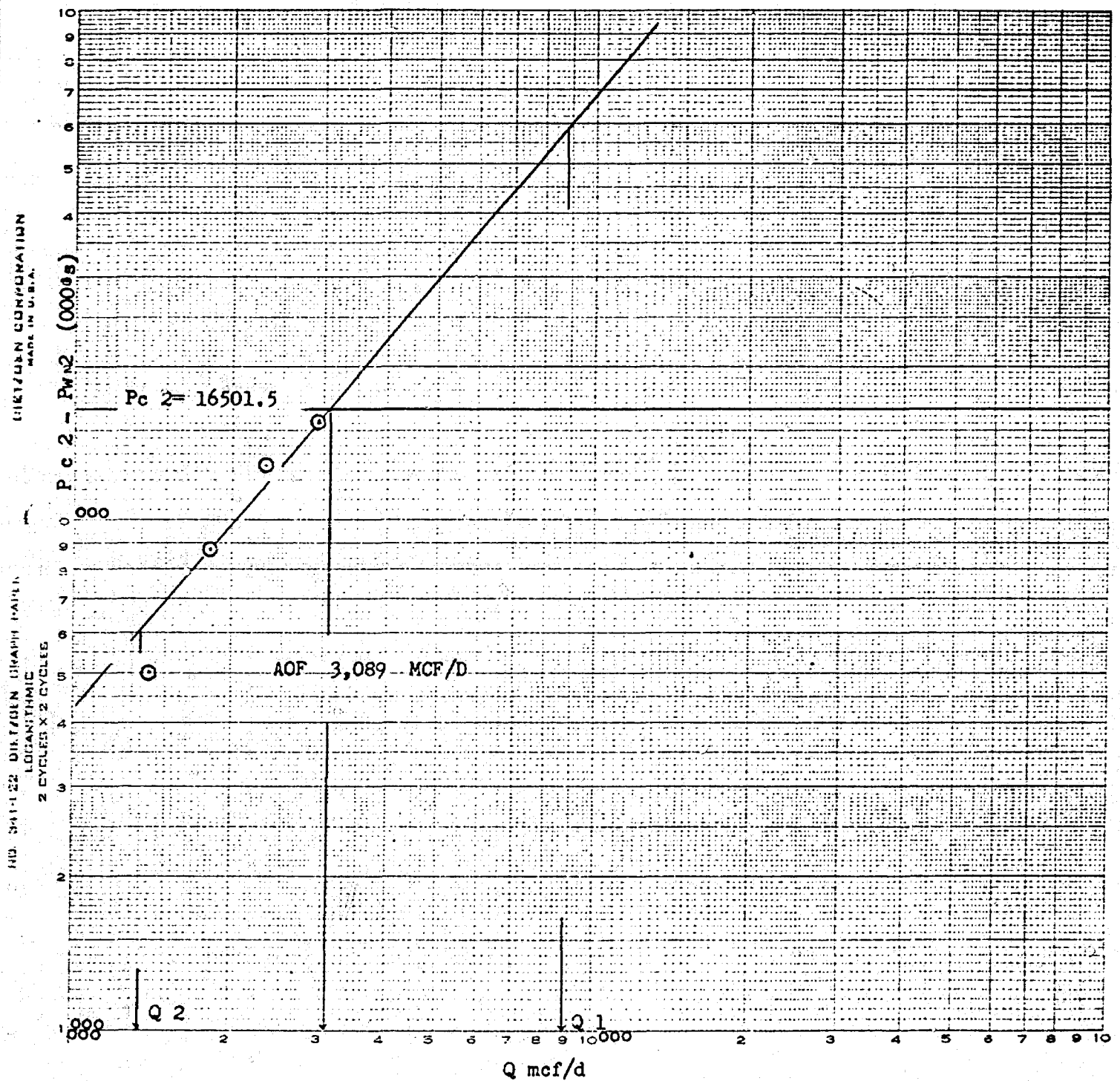
$ADP = Q \left[ \frac{P_1^2}{P_2^2 - P_1^2} \right]^n = 3.089$

Absolute Open Flow 3,089 Mcfd @ 15.025 Angle of Slope 50.75° Slope, n .814

Remarks: Gulf 3 6418

Approved by Commission: 6418 Conducted by: James R. Davis Calculated by: James R. Davis Checked by:

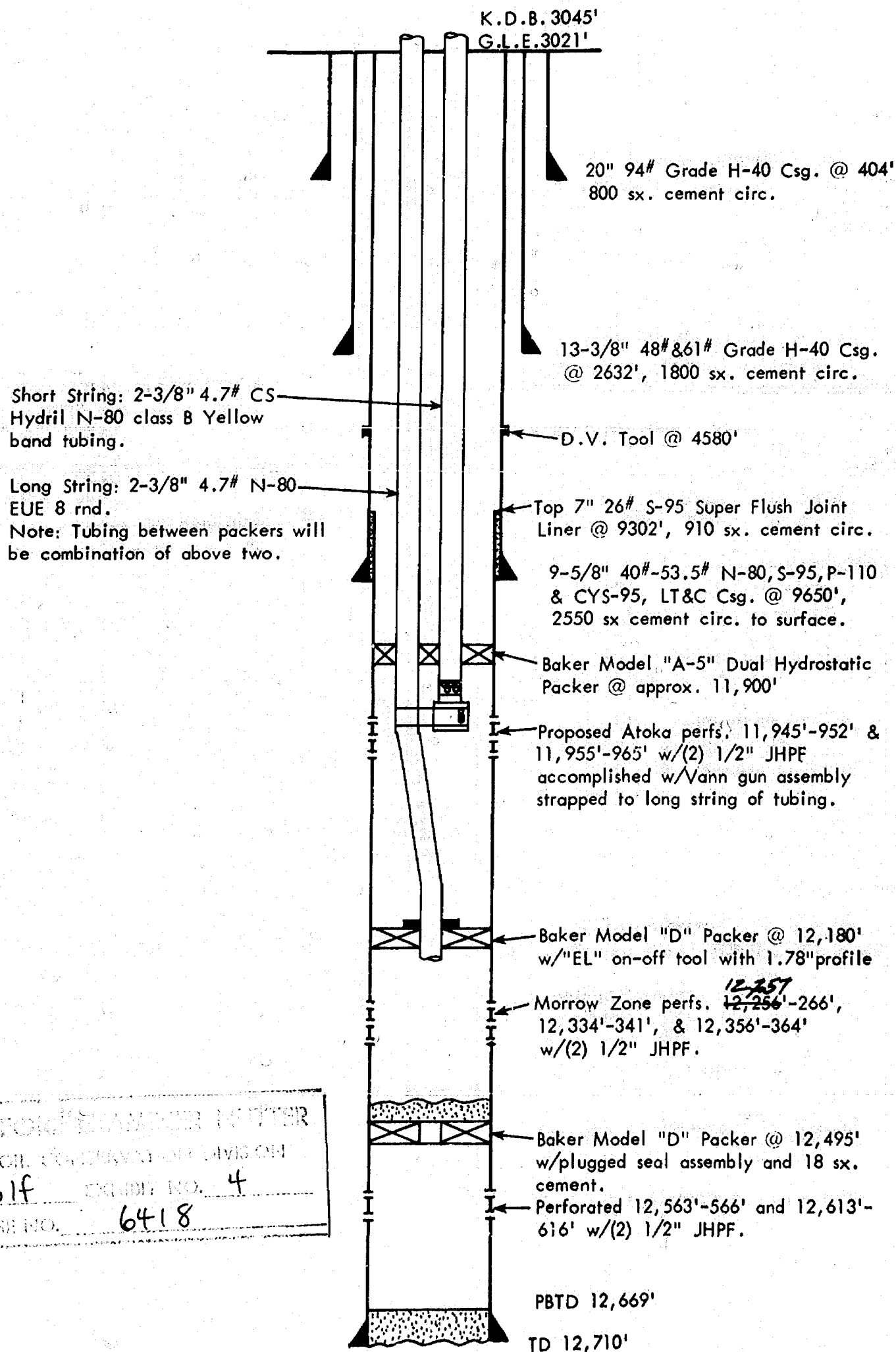
COMPANY : GULF OIL CO  
 LEASE : EDDY GR STA1 COM.  
 WELL NO : # 1  
 FIELD : UNIT E 16-23-28  
 COUNTY : EDDY  
 DATE : 10-28-78



Q 1 = 8800 ; LOG OF Q 1 3.9444483  
 Q 2 = 1350 ; LOG OF Q 2 3.130334  
 N .814

Exhibit No.

EDDY "GR" STATE WELL NO. 1  
PROPOSED DUAL COMPLETION  
Case No. 6418 January 17, 1979  
Gulf Oil Corporation



BEFORE SIGNATURE NOTAR  
OIL COMPANY DIVISION  
Gulf EXHIBIT NO. 4  
CASE NO. 6418

JAN 15 1979 LAW OFFICES  
MODRALL, SPERLING, ROEHL, HARRIS & SISK

JAMES E. SPERLING  
JOSEPH E. ROEHL  
GEORGE T. HARRIS, JR.  
DANIEL A. SISK  
LELAND S. SEDBERRY, JR.  
ALLEN C. DEWEY, JR.  
FRANK M. ALLEN, JR.  
JAMES A. PARKER  
JOHN R. COONEY  
KENNETH L. HARRIGAN  
PETER J. ADAMO  
DALE W. EK  
DENNIS J. FALK  
JOE R. G. FULCHER  
ARTHUR D. HELENORE  
JAMES P. HOUGHTON

PUBLIC SERVICE BUILDING  
Santa Fe P. O. BOX 2166  
ALBUQUERQUE, NEW MEXICO 87103

JOHN F. SIMMS  
(1986-1984)  
AUGUSTUS T. SEYMOUR  
(1907-1988)  
J. R. MODRALL  
(1908-1977)

GEORGE J. HOPKINS  
PAUL M. FISH  
JUDY A. FRY  
MARK B. THOMPSON  
JEFFREY W. LOUBET  
RUTH M. SCHIFANI  
THOMAS L. JOHNSON  
LYNN H. SLADE  
ALAN KONRAD  
ZACHARY L. MCCORMICK  
ROGER VONK, EATON  
THURMAN W. MOORE  
CLIFFORD K. ATKINSON  
DOUGLAS A. BAKER  
DEBORAH J. HERZBERG  
SUSAN R. STOCKSTILL

January 11, 1979

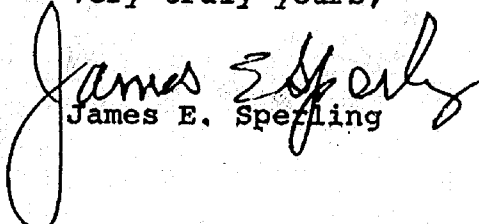
Mr. Joe D. Ramey  
Secretary-Director  
Oil Conservation Division  
Department of Energy & Minerals  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Re: Application of Gulf Oil Corporation -  
Case No. 6418

Dear Mr. Ramey:

Enclosed is Entry of Appearance on behalf of Gulf Oil Corporation in Case No. 6418, which has been docketed for the Examiner's Hearing on January 17, 1979.

Very truly yours,

  
James E. Sperling

/jev  
Enclosure

cc: Mr. Morgan L. Copeland, w/encl.  
Mr. Terry T. Cross, w/encl.

JAN 15 1973

BEFORE THE OIL CONSERVATION DIVISION

STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION  
OF GULF OIL CORPORATION FOR DUAL  
COMPLETION OF ITS EDDY "GR" STATE  
WELL NO. 1, EDDY COUNTY, NEW  
MEXICO

Case No. 6418

ENTRY OF APPEARANCE

The undersigned, Modrall, Sperling, Roehl, Harris & Sisk,  
of Albuquerque, New Mexico, hereby enter their appearance for  
the applicant, Gulf Oil Corporation, with its house counsel of  
Midland, Texas.

MODRALL SPERLING ROEHL HARRIS & SISK

By: James E. Sperling  
James E. Sperling, Attorneys for  
Gulf Oil Corporation  
P. O. Box 2168  
Albuquerque, New Mexico 87103  
Telephone: (505) 243-4511

Dockets Nos. 3-79 and 4-79 are tentatively set for hearing on January 24 and 31, 1979. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - JANUARY 17, 1979

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

The following cases will be heard before Daniel S. Nutter, Examiner, or Richard L. Stamets, Alternate Examiner:

ALLOWABLE: (1) Consideration of the allowable production of gas for February, 1979, from fifteen prorated pools in Lea, Eddy, and Chaves Counties, New Mexico.

(2) Consideration of the allowable production of gas for February, 1979, from four prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico.

CASE 6418: Application of Gulf Oil Corporation for a dual completion, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its Eddy "GR" State Well No. 1 located in Unit E of Section 16, Township 23 South, Range 28 East, Eddy County, New Mexico, to produce gas from the Atoka and Morrow formations through parallel strings of tubing.

CASE 6413: (Continued from January 3, 1979, Examiner Hearing)

Application of Atlantic Richfield Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its Langley Getty Com Well No. 1 located in Unit N of Section 21, Township 22 South, Range 36 East, Langley Field, Lea County, New Mexico, to produce gas from the Devonian and Ellenburger formations, through parallel strings of tubing.

CASE 6414: (Continued from January 3, 1979, Examiner Hearing)

Application of Atlantic Richfield Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Devonian formation through the perforated interval from 13,590 feet to 13,685 feet in its Lea 396 State Well No. 1 located in Unit K of Section 35, Township 15 South, Range 36 East, Dean-Devonian Pool, Lea County, New Mexico.

CASE 6415: (Continued from January 3, 1979, Examiner Hearing)

Application of Yates Petroleum Corporation for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp thru Devonian formations underlying the W/2 of Section 20, Township 14 South, Range 36 East, Lea County, New Mexico, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6419: Application of Yates Petroleum Corporation for a dual completion, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its Lanning JC Well No. 1 located in Unit B of Section 7, Township 18 South, Range 26 East, Eagle Creek Field, Eddy County, New Mexico, to produce gas from the Strawn formation through the casing-tubing annulus and from the Morrow formation through tubing.

CASE 6420: Application of LaRue and Muncy for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Abo formation underlying the NW/4 SE/4 of Section 34, Township 18 South, Range 26 East, Dayton-Abo Pool, Eddy County, New Mexico, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6416: (Continued from January 3, 1979, Examiner Hearing)

Application of Anadarko Production Company for special pool rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the Cedar Lake-Morrow Gas Pool, Eddy County, New Mexico, to provide for 320-acre spacing rather than 160 acres. In the absence of objection, this pool will be placed on the standard 320-acre spacing for Wolfcamp and Pennsylvanian gas pools rather than the present 160-acre spacing.



CASE 6390: (Continued from January 3, 1979, Examiner Hearing)

Application of C & E Operators for compulsory pooling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests down thru the Pictured Cliffs formation underlying the SW/4 of Section 10, Township 30 North, Range 11 West, San Juan County, New Mexico, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6421: In the matter of the hearing called by the Oil Conservation Division on its own motion for an order creating and extending vertical and horizontal limits of certain pools in Chaves, Eddy, Lea, and Roosevelt Counties, New Mexico:

(a) CREATE a new pool in Eddy County, New Mexico, classified as an oil pool for Wolfcamp production and designated as the Avalon-Wolfcamp Pool. The discovery well is Maralo, Inc. Hanson Federal Well No. 2 located in Unit O of Section 28, Township 20 South, Range 27 East, NMPM. Said pool would comprise:

TOWNSHIP 20 SOUTH, RANGE 27 EAST, NMPM  
Section 28: SE/4

(b) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Atoka production and designated as the Black River-Atoka Gas Pool. The discovery well is HNG Oil Company Bowden 25 Federal Com. Well No. 1 located in Unit I of Section 25, Township 24 South, Range 26 East, NMPM. Said pool would comprise:

TOWNSHIP 24 SOUTH, RANGE 26 EAST, NMPM  
Section 25: E/2

(c) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Strawn production and designated as the Box Canyon-Strawn Gas Pool. The discovery well is Yates Petroleum Corporation Huber 1A Federal Well No. 2 located in Unit P of Section 15, Township 21 South, Range 21 East, NMPM. Said pool would comprise:

TOWNSHIP 21 SOUTH, RANGE 21 EAST, NMPM  
Section 15: S/2

(d) CREATE a new pool in Eddy County, New Mexico, classified as an oil pool for Delaware production and designated as the Cotton Draw-Delaware Pool. The discovery well is Coquina Oil Corporation El Paso Federal Well No. 1 located in Unit K of Section 12, Township 24 South, Range 31 East, NMPM. Said pool would comprise:

TOWNSHIP 24 SOUTH, RANGE 31 EAST, NMPM  
Section 12: SW/4

(e) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Atoka production and designated as the East Cottonwood Creek-Atoka Gas Pool. The discovery well is Yates Petroleum Corporation Lizzie Howard HK Well No. 1 located in Unit K of Section 13, Township 16 South, Range 25 East, NMPM. Said pool would comprise:

TOWNSHIP 16 SOUTH, RANGE 25 EAST, NMPM  
Section 13: W/2

(f) CREATE a new pool in Lea County, New Mexico, classified as an oil pool for Yates-Seven Rivers production and designated as the North Custer Yates-Seven Rivers Pool. The discovery well is Gifford, Mitchell & Wisenbaker Amoco State Well No. 1 located in Unit B of Section 36, Township 24 South, Range 35 East, NMPM. Said pool would comprise:

TOWNSHIP 24 SOUTH, RANGE 35 EAST, NMPM  
Section 36: NE/4

(g) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Atoka production and designated as the Diamond Mound-Atoka Gas Pool. The discovery well is Northern Natural Gas Company Vandagriff Federal Well No. 1 located in Unit K of Section 1, Township 16 South, Range 27 East, NMPM. Said pool would comprise:

TOWNSHIP 16 SOUTH, RANGE 27 EAST, NMPM  
Section 1: All  
Section 2: Lots 1, 2, 7, 8, 9, 10, 15 and 16



(h) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Morrow production and designated as the Fenton Draw-Morrow Gas Pool, the discovery well is Perry R. Bass Big Eddy Unit Well No. 53 located in Unit G of Section 8, Township 21 South, Range 28 East, NMPM. Said pool would comprise:

TOWNSHIP 21 SOUTH, RANGE 28 EAST, NMPM  
Section 8: E/2

(i) CREATE a new pool in Eddy County, New Mexico, classified as an oil pool for Cherry Canyon production and designated as the Herradura Bend-Cherry Canyon Pool. The discovery well is Eastland Oil Company City of Carlsbad Well No. 1 located in Unit K of Section 29, Township 22 South, Range 28 East, NMPM. Said pool would comprise:

TOWNSHIP 22 SOUTH, RANGE 28 EAST, NMPM  
Section 29: SW/4

(j) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Atoka production and designated as the East High Hope-Atoka Gas Pool. The discovery well is Beard Oil Company Hagstrom Well No. 1 located in Unit K of Section 8, Township 17 South, Range 24 East, NMPM. Said pool would comprise:

TOWNSHIP 17 SOUTH, RANGE 24 EAST, NMPM  
Section 8: W/2  
Section 17: W/2  
Section 18: A/1

(k) CREATE a new pool in Lea County, New Mexico, classified as a gas pool for Atoka production and designated as the Hume-Atoka Gas Pool. The discovery well is Mewbourne Oil Company State E Com Well No. 1 located in Unit V of Section 6, Township 16 South, Range 34 East, NMPM. Said pool would comprise:

TOWNSHIP 16 SOUTH, RANGE 34 EAST, NMPM  
Section 6: S/2

(l) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Strawn production and designated as the Loafer Draw-Strawn Gas Pool. The discovery well is Inexco Oil Company Arroyo Federal Well No. 1 located in Unit K of Section 26, Township 21 South, Range 22 East, NMPM. Said pool would comprise:

TOWNSHIP 21 SOUTH, RANGE 22 EAST, NMPM  
Section 26: S/2

(m) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Cisco-Canyon production and designated as the Logan Draw Cisco-Canyon Gas Pool. The discovery well is Mesa Petroleum Company Potter Federal Com Well No. 1 located in Unit B of Section 29, Township 17 South, Range 27 East, NMPM. Said pool would comprise:

TOWNSHIP 17 SOUTH, RANGE 27 EAST, NMPM  
Section 29: N/2

(n) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Morrow production and designated as the North Loving-Morrow Gas Pool. The discovery well is Cities Service Company Polk A Com Well No. 1 located in Unit B of Section 17, Township 23 South, Range 28 East, NMPM. Said pool would comprise:

TOWNSHIP 23 SOUTH, RANGE 28 EAST, NMPM  
Section 16: W/2  
Section 17: N/2

(o) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Strawn production and designated as the North Loving-Strawn Gas Pool. The discovery well is Cities Service Company Polk A Com Well No. 1 located in Unit B of Section 17, Township 23 South, Range 28 East, NMPM. Said pool would comprise:

TOWNSHIP 23 SOUTH, RANGE 28 EAST, NMPM  
Section 17: N/2

(p) CREATE a new pool in Lea County, New Mexico, classified as an oil pool for Drinkard production and designated as the Lovington-Drinkard Pool. The discovery well is Getty Oil Company State O Well No. 12 located in Unit J of Section 31, Township 16 South, Range 37 East, NMPM. Said pool would comprise:

TOWNSHIP 16 SOUTH, RANGE 37 EAST, NMPM  
Section 31: SE/4

(q) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Atoka production and designated as the South Millman-Atoka Gas Pool. The discovery well is Hondo Oil and Gas Company Hondo 22 State Well No. 1 located in Unit H of Section 22, Township 19 South, Range 28 East, NMPM. Said pool would comprise:

TOWNSHIP 19 SOUTH, RANGE 28 EAST, NMPM  
Section 22: E/2

(r) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Premier production and designated as the Pavo Mesa-Premier Gas Pool. The discovery well is Carl A. Schellinger Exxon Federal Well No. 1 located in Unit M of Section 29, Township 16 South, Range 29 East, NMPM. Said pool would comprise:

TOWNSHIP 16 SOUTH, RANGE 29 EAST, NMPM  
Section 29: SW/4

(s) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Morrow production and designated as the Penasco Draw-Morrow Gas Pool. The discovery well is Morris R. Antwell Dinkus Com Well No. 1 located in Unit O of Section 20, Township 18 South, Range 25 East, NMPM. Said pool would comprise:

TOWNSHIP 18 SOUTH, RANGE 24 EAST, NMPM  
Section 24: E/2

TOWNSHIP 18 SOUTH, RANGE 25 EAST, NMPM  
Section 19: All  
Section 20: S/2  
Section 29: All  
Section 30: N/2  
Section 32: N/2

(t) EXTEND the vertical limits of the Monument-Tubb Pool in Lea County, New Mexico, to include the Drinkard formation and redesignate said Monument-Tubb Pool as the Monument Tubb-Drinkard Pool.

(u) EXTEND the Blinebry Oil and Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 37 EAST, NMPM  
Section 8: S/2

(v) EXTEND the Southeast Chaves Queen Gas Area in Chaves County, New Mexico, to include therein:

TOWNSHIP 13 SOUTH, RANGE 31 EAST, NMPM  
Section 3: S/2

(w) EXTEND the South Empire-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 28 EAST, NMPM  
Section 36: E/2

(x) EXTEND the Jenkins-San Andres Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 9 SOUTH, RANGE 35 EAST, NMPM  
Section 27: SW/4

(y) EXTEND the Langley-Ellenburger Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 22 SOUTH, RANGE 36 EAST, NMPM  
Section 21: S/2

(z) EXTEND the Lovington-Queen Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 36 EAST, NMPM  
Section 1: S/2  
Section 12: W/2

(aa) EXTEND the South Millman-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 28 EAST, NMPM  
Section 19: S/2

(bb) EXTEND the Penasco Draw-Atoka Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 25 EAST, NMPM  
Section 27: W/2  
Section 28: All

(cc) EXTEND the South Peterson-Pennsylvanian Pool in Roosevelt County, New Mexico, to include therein:

TOWNSHIP 5 SOUTH, RANGE 33 EAST, NMPM  
Section 31: SE/4 SE/4

(dd) EXTEND the Sioux-Yates Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 26 SOUTH, RANGE 36 EAST, NMPM  
Section 8: N/2  
Section 9: NW/4

(ee) EXTEND the Sombrero-Morrow Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 16 SOUTH, RANGE 33 EAST, NMPM  
Section 12: W/2

(ff) EXTEND the Tom-Tom San Andres Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 7 SOUTH, RANGE 31 EAST, NMPM  
Section 32: SE/4

TOWNSHIP 8 SOUTH, RANGE 31 EAST, NMPM  
Section 5: NE/4

(gg) EXTEND the West Tonto-Pennsylvanian Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 33 EAST, NMPM  
Section 8: W/2

(hh) EXTEND the Tubb Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 22 SOUTH, RANGE 37 EAST, NMPM  
Section 6: SW/4  
Section 7: NW/4

(ii) EXTEND the North Turkey Track-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 29 EAST, NMPM  
Section 5: N/2

(jj) EXTEND the Wantz-Abo Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 37 EAST, NMPM  
Section 34: NE/4

(kk) EXTEND the Warren-Tubb Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 38 EAST, NMPM  
Section 26: SE/4

DOCKET: COMMISSION HEARING - WEDNESDAY - JANUARY 24, 1979

OIL CONSERVATION COMMISSION - 9 A.M. - ROOM 205  
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases are continued from the December 12, 1978, Commission Hearing.

CASE 6231: (DE NOVO) (Continued and Readvertised)

Application of Yates Petroleum Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its State "JM" Well No. 1, a Morrow test to be located 660 feet from the North and East lines of Section 25, Township 18 South, Range 24 East, Eddy County, New Mexico, the N/2 of said Section 25 to be dedicated to the well.

Upon application of Gulf Oil Corporation this case will be heard De Novo pursuant to the provisions of Rule 1220.

CASE 6232: (DE NOVO) (Continued and Readvertised)

Application of Yates Petroleum Corporation for an unorthodox location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Cities "JC" Well No. 1 to be located 660 feet from the South and East lines of Section 13, Township 18 South, Range 24 East, Fordinkus Field, Eddy County, New Mexico, the E/2 of said Section 13 to be dedicated to the well.

Upon application of Gulf Oil Corporation this case will be heard De Novo pursuant to the provisions of Rule 1220.

CASE 6213: (DE NOVO) (Continued and Readvertised)

Application of Morris R. Antweil for an unorthodox location and simultaneous dedication, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of his Rio Well No. 2, a Morrow test to be drilled at a point 660 feet from the North and West lines of Section 29, Township 18 South, Range 25 East, Eddy County, New Mexico, the N/2 of said Section 29 to be simultaneously dedicated to the aforesaid well and to applicant's Rio Well No. 1 located in Unit G of Section 29.

Upon application of Gulf Oil Corporation this case will be heard De Novo pursuant to the provisions of Rule 1220.

Carl Ulvog

Dan:

It looks as if this  
ought to go for a hearing  
since there is no post  
here (or within several  
miles) for either Atoka  
or Morrow. Right - Aug 11/17

Do you know any  
way we can go the  
administrative route?

(lots of Atoka-Morrow  
duck in Eddy Co!)

CU

P.S. I've got the log.  
next hearing available 1-17

NEW MEXICO OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO  
APPLICATION FOR MULTIPLE COMPLETION

Form O-207  
5-1-67

Case 6418 Oct 11/17  
Qual - partial  
Steps of the

Operator <b>GULF OIL CORPORATION</b>		County <b>Eddy</b>	Date <b>12-07-78</b>
Address <b>P. O. Box 670, Hobbs, New Mexico 88240</b>		Lease <b>Eddy "GR" State</b>	Well No. <b>1</b>
Location of Well <b>E</b>	Unit <b>16</b>	Township <b>23 South</b>	Range <b>28 East</b>

1. Has the New Mexico Oil Conservation Commission heretofore authorized the multiple completion of a well in these same pools or in the same zones within one mile of the subject well? YES \_\_\_\_\_ NO ☒ \_\_\_\_\_
2. If answer is yes, identify one such instance: Order No. \_\_\_\_\_; Operator Lease, and Well No.: \_\_\_\_\_

3. The following facts are submitted:	Upper Zone	Intermediate Zone	Lower Zone
a. Name of Pool and Formation	<b>Atoka</b>		<b>Morrow</b>
b. Top and Bottom of Pay Section (Perforations)	<b>11,945' - 11,965'</b>		<b>12,257' - 12,364'</b>
c. Type of production (Oil or Gas)	<b>Gas</b>		<b>Gas</b>
d. Method of Production (Flowing or Artificial Lift)	<b>Flowing</b>		<b>Flowing</b>

4. The following are attached. (Please check YES or NO)

- |   |                                     |   |
|---|-------------------------------------|---|
| Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>         | a. Diagrammatic Sketch of the Multiple Completion, showing all casing strings, including diameters and setting depths, centralizers and/or turbolizers and location thereof, quantities used and top of cement, perforated intervals, tubing strings, including diameters and setting depth, location and type of packers and side door chokes, and such other information as may be pertinent. |
| <input checked="" type="checkbox"/>     | <input type="checkbox"/>            | b. Plat showing the location of all wells on applicant's lease, all offset wells on offset leases, and the names and addresses of operators of all leases offsetting applicant's lease.   |
| <input type="checkbox"/>                | <input checked="" type="checkbox"/> | c. Waivers consenting to such multiple completion from each offset operator, or in lieu thereof, evidence that said offset operators have been furnished copies of the application.*  |
| <input checked="" type="checkbox"/>     | <input type="checkbox"/>            | d. Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed it shall be submitted as provided by Rule 112A.)  |

5. List all offset operators to the lease on which this well is located together with their correct mailing address.

**Amoco Production Company - P. O. Box 3092, Houston, Texas 77001**

**Cities Service Oil Company - P. O. Box 1919, Midland, Texas 79701**

6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES ☒ NO \_\_\_\_\_. If answer is yes, give date of such notification **12-07-78**.

CERTIFICATE: I, the undersigned, state that I am the **Area Engineer** of the **GULF OIL CORPORATION** (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

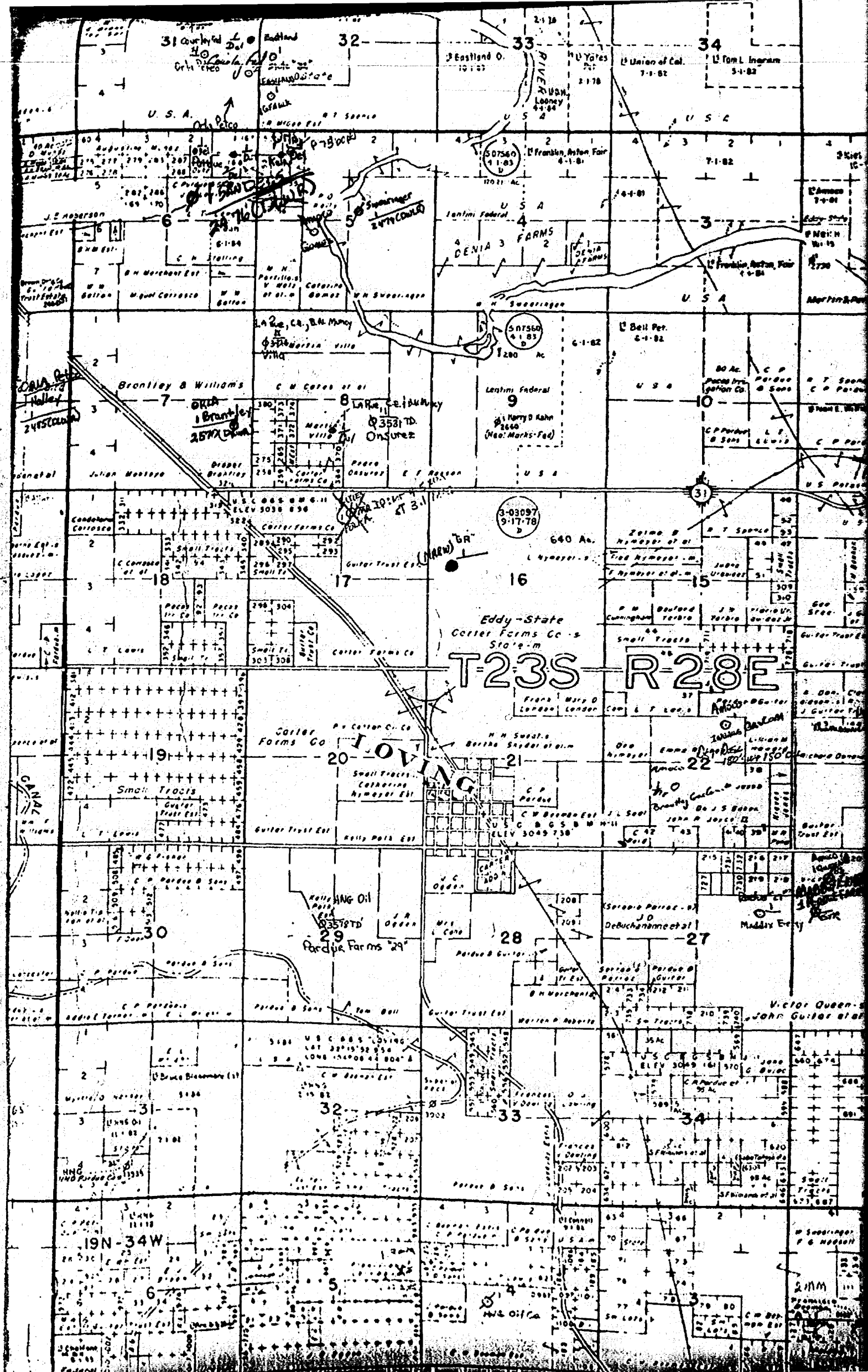
DEC 11 1978  
Oil Conservation Commission

**N. B. Sikas, Jr.**  
Signature

\*Should waivers from all offset operators not accompany an application for administrative approval, the New Mexico Oil Conservation Commission will hold the application for a period of twenty (20) days from date of receipt by the Commission's Santa Fe office. If, after said twenty-day period, no protest nor request for hearing is received by the Santa Fe office, the application will then be processed.

NOTE: If the proposed multiple completion will result in an unorthodox well location and/or a non-standard perforation unit in one or more of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.







State NM

$$H = 0.4$$

**Producing Formation:**

Zone

**Comp. Date**

Date Aband

13 7/8" OD, 48 # Grade 4-40

Set @ 2601 w/ 1800 SXS

Top of Cmt @ C, kc, by:

← DV tool @ 4580'

← short string  $2\frac{3}{8}" 4.7"$   
N-80 NU-LOCK

long string above packer -  
2 1/8" 4.7# N-80 EUE 8rd, below  
PACKER 2 1/8" 4.7# N-80 NU-LOCK.

-TOP 7.26<sup>th</sup> 5-95, Super FIP

Line 20 9300' cont. Circulated

95 1/4" 4U-53, 54 P110, N-803 5-95  
@ 9650' w/2550 sls cont. core  
on both stages.

Baker Model "A-5" Low  
Hydrostatic Packer  
Core 11,100' ±

# Atoka or straw zone

- 978" OD Blast joints across perforated interval.

Baker mole / "D" packed @ Apr 13, 2012

MORROW ZONE

PBTD 12,670'

FD 127101

Notes See attached  
sheet for tubing  
details.

**Treatment History: (Current Zone)**

### Producing History:

### Formation:

**Month or Year**

Oil

**WER :**

## Gas

**Last Test Dated:**

**BORD**

**BVPD**

Fl:                      Calc. Ppg. Eff:

Cum. Oil

**Cum. Gas**

Remarks and Recommendation:

Prepared By:

Date: 9-27-78

NEW MEXICO OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO  
APPLICATION FOR MULTIPLE COMPLETION

Form C-107

RECEIVED

DEC 11 1970

Case 6418

Operator <b>GULF OIL CORPORATION</b>		County <b>Eddy</b>	Date <b>12-07-78</b>
Address <b>P. O. Box 670, Hobbs, New Mexico 88240</b>		Lease <b>Eddy "CR" State</b>	Well No. <b>1</b>
Location of Well <b>E</b>	Section <b>16</b>	Township <b>23 South</b>	Range <b>28 East</b>

1. Has the New Mexico Oil Conservation Commission heretofore authorized the multiple completion of a well in these same pools or in the same zones within one mile of the subject well? YES \_\_\_\_\_ NO **X**
2. If answer is yes, identify one such instance: Order No. \_\_\_\_\_; Operator Lease, and Well No.: \_\_\_\_\_

3. The following facts are submitted:	Upper Zone	Intermediate Zone	Lower Zone
a. Name of Pool and Formation	<b>Atoka</b>		<b>Morrow</b>
b. Top and Bottom of Pay Section (Perforations)	<b>11,945' - 11,965'</b>		<b>12,257' - 12,364'</b>
c. Type of production (Oil or Gas)	<b>Gas</b>		<b>Gas</b>
d. Method of Production (Flowing or Artificial Lift)	<b>Flowing</b>		<b>Flowing</b>

4. The following are attached. (Please check YES or NO)

- |   |                                     |   |
|---|-------------------------------------|---|
| Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>         | a. Diagrammatic Sketch of the Multiple Completion, showing all casing strings, including diameters and setting depths, centralizers and/or turbolizers and location thereof, quantities used and top of cement, perforated intervals, tubing strings, including diameters and setting depth, location and type of packers and side door chokes, and such other information as may be pertinent. |
| <input checked="" type="checkbox"/>     | <input type="checkbox"/>            | b. Plat showing the location of all wells on applicant's lease, all offset wells on offset leases, and the names and addresses of operators of all leases offsetting applicant's lease.   |
| <input type="checkbox"/>                | <input checked="" type="checkbox"/> | c. Waivers consenting to such multiple completion from each offset operator, or in lieu thereof, evidence that said offset operators have been furnished copies of the application.   |
| <input checked="" type="checkbox"/>     | <input type="checkbox"/>            | d. Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed it shall be submitted as provided by Rule 112-2.)   |

5. List all offset operators to the lease on which this well is located together with their correct mailing address.

**Amoco Production Company - P. O. Box 3092, Houston, Texas 77001**

**Cities Service Oil Company - P. O. Box 1919, Midland, Texas 79701**

RECEIVED

DEC 11 1970

Oil Conservation Commission

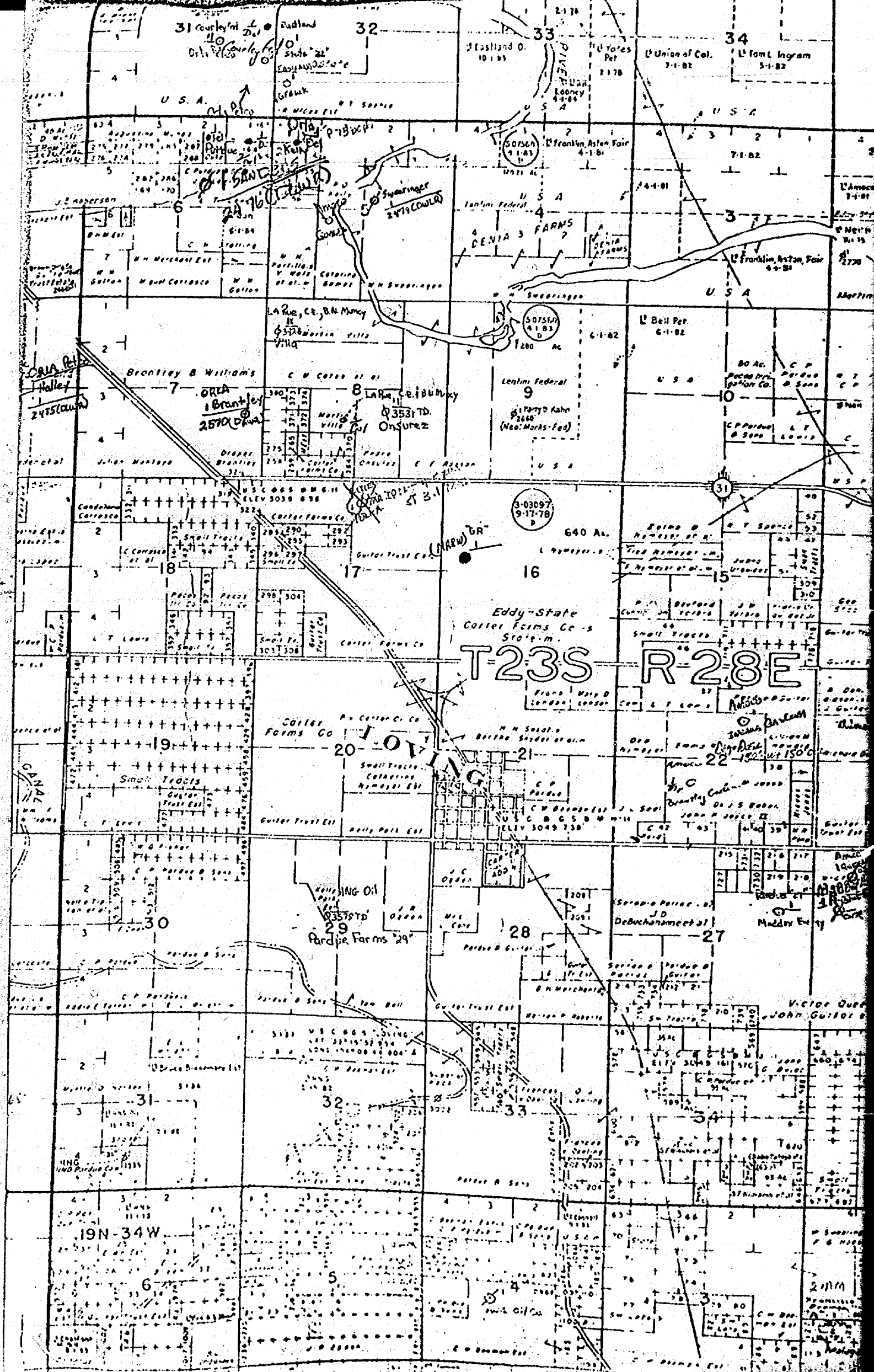
6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES **XX** NO \_\_\_\_ If answer is yes, give date of such notification **12-07-78**

CERTIFICATE: I, the undersigned, state that I am the **Area Engineer** of the **GULF OIL CORPORATION** (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

*N. B. Sikes, Jr.*  
Signature

\*Should waivers from all offset operators not accompany an application for administrative approval, the New Mexico Oil Conservation Commission will hold the application for a period of twenty (20) days from date of receipt by the Commission's Santa Fe office. If, after said twenty day period, no protest nor request for hearing is received by the Santa Fe office, the application will then be processed.

NOTE: If the proposed multiple completion will result in an unorthodox well location and/or a non-standard perforation unit in one or more of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.



Location Sec 16 - T23S - R28E

Well No. 1 Pool

County S. D.

State NM

GLE: 3021'

KDB: 3015'

H = 0.4

Proposed DOAL 10,000# Comp

Initial Comp. Date:

Producing Formation:

20" 94# H-40 @ 404'  
w/ 900 sxs CIRC.

Zone

Comp. Date

Date Ab

13 7/8" OD HR Grade H-40

Set @ 2601' w/ 1800 sxs

Top of Cmt @ CIRC. by:

Treatment History: (Current Zone)

← 2 1/2" tool @ 4580'

← short string 2 3/8" 4.7#  
N-80 NU-LOCK.

← long string above packer  
2 3/8" 4.7# N-80 EUE E.C.D., below  
packer 2 3/8" 4.7# N-80 NU-LOCK.

← TOP 7" 26# 5-95, Super FIP

LINER @ 9300' CMT. CIRCUMF. INTL

Producing History:

Formation:

← 9 5/8" 40-53.5# P110, N-80 5-95  
@ 9650' w/ 2550 sxs CMT. CIRC.  
on both strings.

Month or Year

Oil

Wtr.

G

← 2 1/2" tool @ 11-5" level

Location Sec 16 - T23S - R28E

Well No. 1 Pool 1

County Edg

State WV

GLE: 3021'

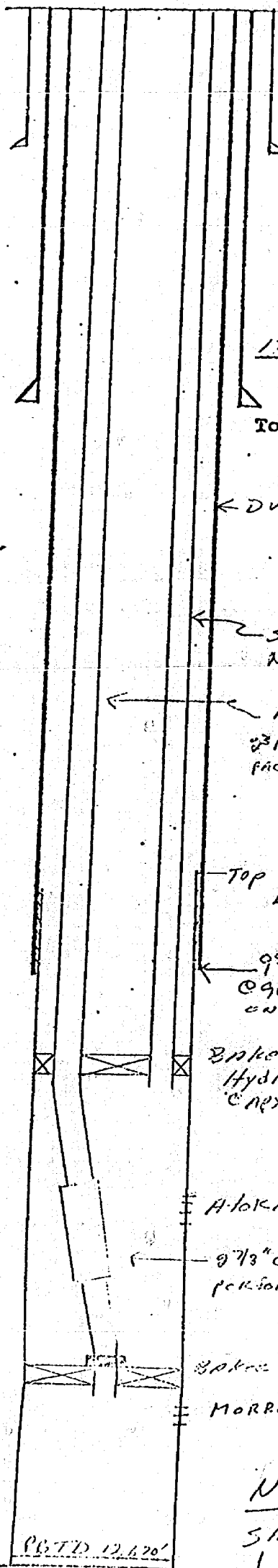
KDB: 2015'

H = 2.4

Proposed Deal 10,000\*Comp

Initial Comp. Date: \_\_\_\_\_

Producing Formation: \_\_\_\_\_



Zone

Comp. Date

Date Ab

Treatment History: (Current Zone)

Producing History:

Formation:

Month or Year

Oil

Wtr

G

Last Test Dated:

BOED

BWPD

FL:

Calc. Ppg. Eff:

Cum. Oil

Cum. Gas

Remarks and Recommendation:

Notes see attached sheet for tubing details.

Prepared By:

Date:

R. W. W. W.  
9-27-78



ROUGH

dr/

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
DIVISION FOR THE PURPOSE OF  
CONSIDERING:

CASE NO. 6418

Order No. R- 5914

APPLICATION OF GULF OIL CORPORATION

FOR A DUAL COMPLETION, EDDY

COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 o'clock a.m. on  
January 17, 19 79, at Santa Fe, New Mexico, before  
Examiner Daniel S. Nutter.

NOW, on this \_\_\_\_\_ day of January, 19 79, the  
Division Director, 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 Division has jurisdiction of this cause and the subject  
matter thereof.

(2) That the applicant, Gulf Oil Corporation,  
seeks authority to complete its Eddy "GR" State  
Well No. 1, located in Unit E of Section 16, Town-  
ship 23 South, Range 28 East, NMPM, Eddy  
County, New Mexico, as a dual completion (conventional) to  
~~(combination)~~  
~~(tubingless)~~

--oil--  
produce gas from the Atoka and Morrow formations through  
parallel strings of tubing.

(3) That the mechanics of the proposed dual completion are feasible and in accord with good conservation practices.

(4) That approval of the subject application will prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Gulf Oil Corporation, is hereby authorized to complete its Eddy "GR" State Well No. 1, located in Unit E of Section 16, Township 23 South, Range 28 East, NMPM, Eddy County, New Mexico, as a dual completion (conventional) ~~xx(combination)xx~~ ~~xx(tubingless)xx~~

~~oil~~ to produce gas from the Atoka and Morrow formations through parallel strings of tubing with separation of the zones achieved by means of a packer set at approximately 12,180 feet

PROVIDED HOWEVER, that the applicant shall complete, operate, and produce said well in accordance with the provisions of Rule 112-A of the Division Rules and Regulations insofar as said rule is not inconsistent with this order;

PROVIDED FURTHER, that the applicant shall take Packer Leakage tests upon completion and annually thereafter during the Annual Shut-in Pressure Test Period for the Morrow zone. Pool

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

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