

CASE 5777: GIFFORD & MITCHELL & M.  
B. WISEBAKER FOR POOL CREATION,  
POOL RULES, & A NON-STANDARD GAS  
SPACING UNIT, LEA COUNTY, NM

Cont & reader  
for 10-27

CASE 110.

5777

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Application,

Transcripts,

Small Exhibits

ETC.

BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
October 27, 1976

EXAMINER HEARING

IN THE MATTER OF:

Application of Gifford & Mitchell and  
M. B. Wisenbaker for pool creation, pool  
rules and a non-standard gas spacing  
unit, Lea County, New Mexico.

CASE  
5777  
(Readvertised)

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the New Mexico Oil Conservation Commission: Lynn Teschendorf, Esq.  
Legal Counsel for the Commission  
State Land Office Building  
Santa Fe, New Mexico

For the Applicant: Jason W. Kellahin, Esq.  
KELLAHIN & FOX  
Attorneys at Law  
500 Don Gaspar  
Santa Fe, New Mexico

**sid morrish reporting service**

General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 992-9212

1 MR. NUTTER: We will call Case Number 5777.

2 MS. TESCHENDORF: Case 5777, application of Gifford  
3 & Mitchell and M. B. Wisenbaker for pool creation, pool rules  
4 and a non-standard gas spacing unit, Lea County, New Mexico.

5 MR. KELLAHIN: If the Examiner please, Jason Kellahin,  
6 Kellahin and Fox, appearing for the applicant.

7 This case was heard at the previous Examiner Hearing  
8 but because of the deviation of the testimony from the  
9 advertised case it has been readvertised for hearing at this  
10 time.

11 MR. NUTTER: I believe the record will reflect that  
12 the original advertisement of the case was for the Atoka  
13 formation and it has now been broadened to the entire  
14 Pennsylvanian formation.

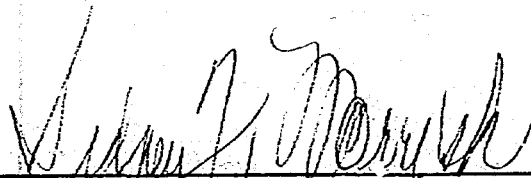
15 Are there any appearances to be made in Case Number  
16 5777, other than Mr. Kellahin's? If not, we will take the  
17 case under advisement and the hearing is adjourned.

18 (THEREUPON, the hearing was adjourned.)  
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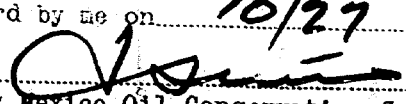


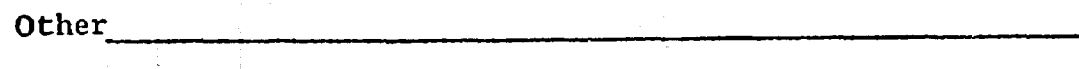
REPORTER'S CERTIFICATE

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

  
Sidney F. Morrish, C.S.R.

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I do hereby certify that the foregoing is  
a complete record of the proceedings  
the Examiner hearing of Case No. 5777 (reals)  
heard by me on 10/27, 1976  
, Examiner  
New Mexico Oil Conservation Commission



BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
COMMISSION OF NEW MEXICO FOR  
THE PURPOSE OF CONSIDERING:

CASE NO. 5777  
Order No. R-5316

NOMENCLATURE

APPLICATION OF GIFFORD & MITCHELL AND  
M. B. WISENBAKER FOR POOL CREATION,  
POOL RULES, AND A NON-STANDARD GAS  
SPACING UNIT, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on October 27, 1976,  
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 4th day of November, 1976, the Commission,  
a quorum being present, having considered the testimony, the  
record, and the recommendations of the Examiner, and being fully  
advised in the premises,

FINDS:

- (1) That due public notice having been given as required  
by law, the Commission has jurisdiction of this cause and the  
subject matter thereof.
- (2) That the applicant, Gifford & Mitchell and M. B.  
Wisembaker, seeks the creation of a new gas pool for Pennsylvanian  
production in Lea County, New Mexico, and the promulgation of  
special rules and regulations governing said pool, including a  
provision for 640-acre spacing and proration units.
- (3) That said pool offsets a commercial gas pool for  
Pennsylvanian production which applicant has discovered by a  
well drilled in Section 13, Public School Land Block C-23,  
Winkler County, Texas.
- (4) That the Texas Railroad Commission has adopted rules for  
the aforesaid pool providing for 640-acre spacing and proration  
units.
- (5) That in order to prevent the economic loss caused by the  
drilling of unnecessary wells, to avoid the augmentation of risk  
arising from the drilling of an excessive number of wells, to  
prevent reduced recovery which might result from the drilling of  
too few wells, and to otherwise prevent waste and protect

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Case No. 5777

Order No. R-5316

correlative rights, temporary special rules and regulations providing for 640-acre spacing units should be promulgated for the Horse Back-Pennsylvanian Gas Pool.

(6) That the temporary special rules and regulations should provide for limited well locations in order to assure orderly development of the pool and protect correlative rights.

(7) That special rules and regulations should be established for a temporary period to expire one year from the date that a pipeline connection is first obtained for a well in the pool; that during this temporary period all operators in the subject pool should gather all available information relative to drainage and recoverable reserves.

(8) That this case should be reopened at an examiner hearing one year from the date that a pipeline connection is first obtained for a well in the Horse Back-Pennsylvanian Gas Pool, at which time the operators in the subject pool should appear and show cause why the Horse Back-Pennsylvanian Gas Pool should not be developed on 320-acre spacing units.

(9) That the first operator to obtain a pipeline connection for a well in the Horse Back-Pennsylvanian Gas Pool should notify the Commission in writing of such fact, and that the Commission should thereupon issue a supplemental order designating an exact date for reopening this case.

(10) That applicant further seeks approval for a 589.52-acre non-standard gas spacing and proration unit comprising all of partial Sections 33 and 34, Township 26 South, Range 36 East, NMPM, Lea County, New Mexico, to be dedicated to applicant's Horse Back Well No. 1, located 1000 feet from the South line and 1980 feet from the East line of said Section 33.

(11) That approval of said non-standard unit will not impair correlative rights nor cause waste.

IT IS THEREFORE ORDERED:

(1) That a new pool in Lea County, New Mexico, classified as a gas pool for Pennsylvanian production, is hereby created and designated the Horse Back-Pennsylvanian Gas Pool, comprising the following described area:

LEA COUNTY, NEW MEXICO  
TOWNSHIP 26 SOUTH, RANGE 36 EAST, NMPM  
Sections 33 and 34: All

(2) That temporary Special Rules and Regulations for the Horse Back-Pennsylvanian Gas Pool, Lea County, New Mexico, are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS  
FOR THE  
HORSE BACK-PENNSYLVANIAN GAS POOL

**RULE 1.** Each well completed or recompleted in the Horse Back-Pennsylvanian Gas Pool or in the Pennsylvanian formation within one mile thereof, and not nearer to or within the limits of another designated Pennsylvanian gas pool, shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth.

**RULE 2.** Each well shall be located on a standard unit containing 640 acres, more or less, consisting of a governmental section.

**RULE 3.** The Secretary-Director of the Commission may grant an exception to the requirements of Rule 2 without notice and hearing when an application has been filed for a non-standard unit and the unorthodox size or shape of the unit is necessitated by a variation in the legal subdivision of the United States Public Land Surveys, or the following facts exist and the following provisions are complied with:

- (a) The non-standard unit consists of quarter-quarter sections or lots that are contiguous by a common bordering side.
- (b) The non-standard unit lies wholly within a governmental section and contains less acreage than a standard unit.
- (c) The applicant presents written consent in the form of waivers from all offset operators and from all operators owning interests in the section in which the non-standard unit is situated and which acreage is not included in said non-standard unit.
- (d) In lieu of paragraph (c) of this rule, the applicant may furnish proof of the fact that all of the aforesaid operators were notified by registered or certified mail of his intent to form such non-standard unit. The Secretary-Director may approve the application if no such operator has entered an objection to the formation of such non-standard unit within 30 days after the Secretary-Director has received the application.

**RULE 4.** Each well shall be located no nearer than 1650 feet to the outer boundary of the section and no nearer than 330 feet to any governmental quarter-quarter section line.

RULE 5. The Secretary-Director may grant an exception to the requirements of Rule 4 without notice and hearing when an application has been filed for an unorthodox location necessitated by topographical conditions or the recompletion of a well previously drilled to another horizon. All operators offsetting the proration unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all operators offsetting the proration unit or if no objection to the unorthodox location has been entered within 20 days after the Secretary-Director has received the application.

IT IS FURTHER ORDERED:

(1) That the locations of all wells presently drilling to or completed in the Horse Back-Pennsylvanian Gas Pool or in the Pennsylvanian formation within one mile thereof are hereby approved; that the operator of any well having an unorthodox location shall notify the Hobbs District Office of the Commission in writing of the name and location of the well on or before December 1, 1976.

(2) That, pursuant to Paragraph A. of Section 65-3-14.5, NMSA 1953, contained in Chapter 271, Laws of 1969, existing wells in the Horse Back-Pennsylvanian Gas Pool shall have dedicated thereto 640 acres in accordance with the foregoing pool rules; or, pursuant to Paragraph C. of said Section 65-3-14.5, existing wells may have non-standard spacing or proration units established by the Commission and dedicated thereto.

Failure to file new Forms C-102 with the Commission dedicating 640 acres to a well or to obtain a non-standard unit approved by the Commission within 60 days from the date of this order shall subject the well to cancellation of allowable. Until said Form C-102 has been filed or until a non-standard unit has been approved, and subject to said 60-day limitation, each well presently drilling to or completed in the Horse Back-Pennsylvanian Gas Pool or in the Pennsylvanian formation within one mile thereof shall receive no more than one-half of a standard allowable for the pool.

(3) That this case shall be reopened at an examiner hearing one year from the date that a pipeline connection is first obtained for a well in the Horse Back-Pennsylvanian Gas Pool, at which time the operators in the subject pool may appear and show cause why the Horse Back-Pennsylvanian Gas Pool should not be developed on 320-acre spacing units.

(4) That the first operator to obtain a pipeline connection for a well in the Horse Back-Pennsylvanian Gas Pool shall notify the Commission in writing of such fact, and that the Commission will thereupon issue a supplemental order designating an exact date for reopening this case.

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Case No. 5777  
Order No. R-5316

(5) That a 589.52-acre non-standard gas spacing and proration unit comprising all of partial Sections 33 and 34, Township 26 South, Range 36 East, NMPM, Lea County, New Mexico, is hereby approved, said unit to be dedicated to applicant's Horse Back Well No. 1, located 1000 feet from the South line and 1980 feet from the East line of said Section 33.

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

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

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

PHIL R. LUCERO, Chairman

EMERY C. ARNOLD, Member

JOE D. RAMEY, Member & Secretary

SEAL

jr/

Memo 11/1

From  
D. S. NUTTER  
CHIEF ENGINEER

To Case 5777

Chris Aldridge, Midland  
atly for Rufford and Nitcher,  
called and said that  
today the RR Commission  
of Texas entered an order  
in Docket # 8-66522 creating  
the Comanche-Marrow  
gas pool, adopting 1320'-  
3735' spacing, 640-acre units,  
w/ 10% tolerance and  
straight acreage allocation.



C W Trainer

Dave Trainer

9205 Hwy. 71 West - Austin, Texas 78746 - 512-288-2613 or 288-0277

October 26, 1976

New Mexico Oil Conservation Commission  
Box 2088  
Santa Fe, N.M. 87501

Gentlemen:

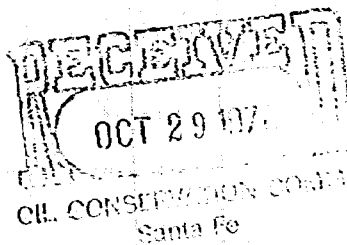
Enclosed is your transcript of hearing for Case # 5777.

Thanks a million for the loan.

Sincerely,

*CW Trainer*

C W Trainer



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BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
September 29, 1976

EXAMINER HEARING

IN THE MATTER OF:

Application of Gifford & Mitchell and  
M. B. Wisenbaker for pool creation,  
pool rules and a non-standard gas  
spacing unit, Lea County, New Mexico.

CASE  
5777

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the New Mexico Oil  
Conservation Commission:

William F. Carr, Esq.  
Legal Counsel for the Commission  
State Land Office Building  
Santa Fe, New Mexico

For the Applicant:

W. Thomas Kellahin, Esq.  
KELLAHIN & FOX  
Attorneys at Law  
500 Don Gaspar  
Santa Fe, New Mexico

I N D E X

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	<u>Offered</u>	<u>Admitted</u>
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1 MR. NUTTER: We will call Case Number 5777.

2 MR. CARR: Case 5777, application of Gifford &  
3 Mitchell and M. B. Wisenbaker for pool creation, pool rules  
4 and a non-standard gas spacing unit, Lea County, New Mexico.

5 MR. KELLAHIN: Tom Kellahin of Kellahin and Fox  
6 appearing on behalf of the applicant and I have one witness  
7 to be sworn.

8 (THEREUPON, the witness was duly sworn.)  
9

10 JOE GIFFORD

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

13  
14 DIRECT EXAMINATION

15 BY MR. KELLAHIN:

16 Q Would you please state your name and occupation?

17 A My name is Joe Gifford, I'm a partner in Gifford &  
18 Mitchell, Midland, Texas.

19 Q Mr. Gifford, have you previously testified before  
20 this Commission?

21 A No, I haven't.

22 Q Would you describe briefly for the benefit of the  
23 Examiner your professional and educational background?

24 A I'm a graduate of the University of Nebraska in  
25 1952 with a Bachelor of Science, majoring in geology and then

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1 a year of graduate work from '54 to '55.

2 Q Subsequent to your graduation, Mr. Gifford, where  
3 have you been employed?

4 A I was employed by Sinclair Oil and Gas Company and  
5 became the Chief Geologist for Sinclair Mediterranean Oil  
6 Company in Paris, France, followed by a District Manager's job  
7 in Midland, Texas for Sinclair and then a partner with Bill  
8 Roden in Roden Oil Company and then an independent.

9 Q When did you leave Sinclair?

10 A I left Sinclair in 1966.

11 Q When did you form your current partnership with  
12 Mitchell and Wisenbaker?

13 A That was in 1969.

14 Q Have you made a professional study of the facts  
15 surrounding the particular application in question?

16 A Yes, I have.

17 MR. KELLAHIN: If the Examiner please, are the  
18 witness' qualifications acceptable?

19 MR. NUTTER: Yes, they are.

20 Q (Mr. Kellahin continuing.) Would you please go to  
21 what has been marked Exhibit Number One, identify it and  
22 explain what you are seeking to accomplish?

23 A I have three maps on this montage and a cross section  
24 and I point out the location of Horseback Well is right on  
25 the Lea County-Winkler County line and I have it marked with a

1 red arrow. There are also three fields noted here, the  
2 Crittenden Field, the Cheyenne Field and the Comanche Field  
3 which we discovered with our No. 1 Comanche Unit Well.

4 To the left is a land plat showing the Comanche Unit  
5 in Texas, it's a four-section unit. It was a beneficial  
6 working interest unit.

7 MR. NUTTER: And it is outlined in yellow?

8 A. In yellow, correct, and this was the Comanche Unit  
9 Well in Section 13 and the proposed well is approximately one  
10 mile north-northwest, lying in Section 33 of 26, 37.

11 This is a structure map on the Devonian horizon  
12 which shows the proposed Horseback Well and its relationship  
13 to our Comanche Unit Well, as well as the relationship to the  
14 Crittenden Field and I am going to refer to that because that  
15 is on the cross section here. We have prepared a cross  
16 section running from A to A Prime and we just randomly put  
17 these wells in here but the reason they are put in the way  
18 they are is to show the distribution of the sand that is now  
19 producing in the Crittenden Field in Texas.

20 Q (Mr. Kellahin continuing.) Why have you chosen a  
21 Devonian structure map?

22 A. The Morrow -- well, in fact, the Pennsylvanian  
23 conforms very, very closely to the Devonian in this area. You  
24 have no major unconformities, no radical changes in thickness  
25 and so the Morrow structure will conform very closely.

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Page 6

1 The map that I have presented here is a modification  
2 of a commercial structure map, it's called Structure Maps,  
3 Incorporated, that we subscribe to and it simply shows how  
4 the Horseback will relate to the regional structural geology.

5 Q You are seeking to accomplish what type of spacing  
6 for the creation of this pool?

7 A We would like to space it on a six, forty acre  
8 proration unit.

9 Q For what formation?

10 A For the Pennsylvanian.

11 Q The entire Pennsylvanian?

12 A Yes.

13 MR. KELLAHIN: If the Examiner please, the application  
14 does request that the spacing rules apply to the Pennsylvanian  
15 and Devonian formations. It indicates that it is to be  
16 principally an Atoka test and perhaps that was the reason that  
17 the advertisement simply refers to Atoka production. We would  
18 like to present our testimony this morning with regards to the  
19 entire Pennsylvanian and perhaps have the advertisement  
20 re-issued and the order entered after re-advertisement.

21 MR. NUTTER: Because you feel that there may be  
22 production in other horizones in the Pennsylvanian formation  
23 besides the Atoka?

24 MR. KELLAHIN: That is correct. We believe that  
25 there may be production in the Morrow.

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1 MR. NUTTER: Okay, now, Mr. Gifford, you mentioned  
2 a discovery well which is south of this proposed well and it  
3 is located in Section 13 down in Texas, what formation does  
4 that well produce out of?

5 A It is producing out of the Morrow.

6 Q (Mr. Kellahin continuing.) While I have you on  
7 this point, Mr. Gifford, would you locate the non-standard  
8 proration unit that will be dedicated to the subject well?

9 A It would be the Section 33 and 34 which are half  
10 sections. They make up about five hundred and eighty-nine  
11 point something acres, as I recall.

12 Q Okay. In order to form the proration unit it will  
13 be necessary to take portions of both of those sections and  
14 combine them, is that correct?

15 A That's correct.

16 Q By doing this will you be avoiding further non-  
17 standard proration units in the area?

18 A That is correct.

19 MR. NUTTER: Mr. Kellahin, you said take "portions"  
20 of those sections, you would take all of those section?

21 MR. KELLAHIN: All of them.

22 MR. NUTTER: All of those fractional sections?

23 MR. KELLAHIN: Exactly right.

24 Q (Mr. Kellahin continuing.) Please continue with  
25 your cross section?



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Page 8

1 A. Okay. The Comanche Unit Well is this well right here  
2 and it is completed out of the Morrow sand. It's fifteen  
3 thousand, five hundred and sixty feet in depth approximately  
4 and the well was completed with a potential of thirty-six point  
5 one million natural without any acid. It appears to be a very  
6 good well out of the Morrow formation.

7 Q. What was the original pressure in the Morrow?

8 A. The bottom-hole pressure is estimated to be about  
9 twelve thousand pounds.

10 Q. Is this well currently producing out of the Atoka?

11 A. No, it's not and it was not tested out of the Atoka.  
12 The Atoka in this well appears to be -- it's borderline, it's  
13 possibly wet. It has fifty-eight percent water saturation  
14 from our logs.

15 Q. What is your next well in your cross section?

16 A. The next well over is back in the Crittenden which is  
17 right here. It is one of the producers on the east edge of  
18 the Crittenden Field. It's the No. 1 Tubb State Unit 22.

19 MR. NUTTER: What is the location of that well, Mr.  
20 Gifford?

21 A. Okay, that is in Section 22 of Block C-23.

22 MR. NUTTER: And it is southwest of your proposed  
23 location.

24 A. It is southwest of our proposed location approximately  
25 three miles.

1 The Crittenden Field is producing from the Atoka  
2 which is at the top of the cross section.

3 Q (Mr. Kellahin continuing.) What is the spacing in  
4 the Crittenden Field?

5 A It is on six forties. It has presently five Atoka  
6 producers and one Ellenberger producer.

7 I have marked the Atoka producing horizon in all of  
8 the wells that I have on the cross section. The thing I want  
9 to point out is that from sample examination and electric log  
10 examination, the Atoka sand and the Morrow sand are very  
11 similar, they are both a very poorly sorted coarse-grained  
12 sand apparently laid down in almost the same environment.

13 The Atoka which we will point out in a later exhibit  
14 has shown excellent communication between wells.

15 Q What was the original pressure in the Atoka?

16 A The original pressure in the Atoka was approximately  
17 twelve thousand pounds.

18 Q What structure did you hang those cross sections on?

19 A We hung it on a marker within the Atoka that is  
20 fairly consistent throughout the area. It's a marker that we  
21 can map on, everything else is very stratigraphic and there  
22 is not a good time marker within the Pennsylvanian and that is  
23 hung right here on this level.

24 We show the presence, and we feel this is important,  
25 the Morrow sand in the three wells that are on the east flank

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1 of the Crittenden Field. That would be these three wells  
 2 here, the No.1-8 Tubb State which is in Section 8 of Block 74,  
 3 the well, it's the Tubb Unit No. 9 in Section 9 of Block 74.  
 4 They have the Morrow sand present but the wells were drilled  
 5 down to a lower level but were completed back up in the Atoka  
 6 formation. It is recognized that this is a zone that they will  
 7 go back to at a later date and it shows that this sand body is  
 8 present in a swath running up through here like this. Of course,  
 9 this is the sand in our Comanche Unit Well, so we feel like  
 10 the sand body like the Atoka in the Crittenden Field is fairly  
 11 extensive in its areal extent.

12 MR. NUTTER: Mr. Gifford, when you say "in a  
 13 swath running up here like this" you mean from the Crittenden  
 14 area northeast up towards your proposed location, is that  
 15 correct?

16 A. That is correct.

17 Q. (Mr. Kellahin continuing.) In your opinion is there  
 18 any communication in the Atoka among these wells?

19 A. Yes, definitely there is communication. We can  
 20 show that on our pressure data from the Dwight gas sheets that  
 21 we have presented. The bottom-hole pressures are exactly  
 22 the same in the Atoka in all of the producing wells in the  
 23 Crittenden Field.

24 Q. How do you propose to produce your subject well?

25 A. We are going to complete in the Morrow, the reason

1 being that there has been a pressure draw down in the Atoka  
2 and the pressures here are still virgin at twelve thousand  
3 pounds where pressures back up in the Atoka will be considerably  
4 less than that and it would be difficult for us to dually  
5 complete this well at this time. We would propose to go ahead  
6 and complete in the Morrow and if we are high enough and above  
7 water in the Atoka to possibly drill another separate well to  
8 the Atoka.

9 MR. NUTTER: Mr. Gifford, why would the pressures  
10 be lower in the Atoka, is it a natural reservoir function or  
11 is it because of drainage from the Crittenden to the southwest?

12 A. Well, of course, we don't know for sure what the  
13 pressures are here but when we drilled through this formation  
14 we did not encounter any excessive pressures. Our mud weight  
15 was up, it's hard for us to say for sure what the pressure  
16 is. I think that we are still quite a bit above the Crittenden  
17 Field pressures but I'm sure that there has been some draw  
18 down.

19 MR. NUTTER: And you feel that the differential of  
20 pressures between the Atoka and the Morrow would be such as  
21 to make a dual completion undesirable?

22 A. Probably not desirable, now, if it is we might try  
23 to dually complete it but we will as we go down, we will  
24 probably test this to determine what the pressures are and  
25 whether we can dually complete it.

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1 Q (Mr. Kellahin continuing.) Do you have any  
2 additional information you would like to highlight on Exhibit  
3 Number One?

4 A That's about all I have, if there are any questions -

5 MR. NUTTER: We might as well while we are on this  
6 exhibit, Mr. Gifford.

7  
8 CROSS EXAMINATION

9 BY MR. NUTTER:

10 Q As I understand it, your proposed well is being  
11 projected to the Morrow and you will test the Atoka on the  
12 way down?

13 A It's projected to the Fusselman but we will be  
14 testing those horizons as we go down if the pressure permits.

15 Q As far as the Pennsylvanian is concerned the Morrow  
16 is the A-one target?

17 A It is the main objective, correct.

18 Q And you will test the Atoka. Now, the offsetting  
19 well to the south encountered a high saturation of water in  
20 the Atoka formation?

21 A That is correct.

22 Q But the permeability and porosity were there?

23 A That is correct.

24 Q And apparently your proposed location is somewhat  
25 higher structurally than the Comanche?

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1 A. The Comanche, yes.

2 Q. The Comanche Unit Well?

3 A. We are hoping that it will be and that is the reason  
4 we are moving that direction, we think we will get somewhat  
5 higher.

6 Q. And the Comanche Unit Well did produce from the  
7 Morrow formation, it's completed in the Morrow for thirty-six  
8 point one million?

9 A. Yes, sir, that's correct.

10 Q. Now, the Crittenden Field is mainly an Atoka Field,  
11 is that it?

12 A. That is correct.

13 Q. And the Morrow sands are present but not very well  
14 developed but later on those wells will be recompleted in  
15 the Morrow?

16 A. They will. The No. 1 Wolf Unit was actually completed  
17 or tested a Morrow sand that was productive. None of the  
18 other wells have actually tested that Morrow but after log  
19 analysis and after having seen what our well has done the  
20 Sinclair geologists have indicated that at some point they will  
21 go back in and recomplete in the Morrow formation.

22 Q. Now, you mentioned that the Railroad Commission had  
23 established six hundred and forty acre spacing in Crittenden  
24 Field, that is for the Atoka formation?

25 A. That is for the Atoka.

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1 Q Have they established any spacing in the Morrow?

2 A No.

3 Q There is no pool designation?

4 A No, there is not.

5 Q Okay, now, how about the Comanche Unit Well in  
6 Texas, has the Railroad Commission established any spacing for  
7 that well as yet?

8 A We have applied for temporary field rules of six  
9 hundred and forty there and that will come up on October 8th.

10 Q You have not had a hearing?

11 A No, we have had no hearing.

12 Q And you have made no application for Atoka in there  
13 at all?

14 A No.

15 Q That will be for Morrow. Okay.

16  
17 DIRECT EXAMINATION

18 BY MR. KELLAHIN:

19 Q Will you please refer to what has been marked as  
20 Exhibit Number Two and identify that?

21 A That is a proposed AFE on our No. 1 Horseback Unit.

22 Q What is the total cost?

23 A The total cost -- it's a twenty thousand foot well --  
24 the total proposed cost is two million, four hundred and seven  
25 thousand dollars.

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1 Q In your opinion, Mr. Gifford, is it economical to  
2 drill this type of well at this cost on less than six hundred  
3 and forty acre spacing?

4 A No, we feel at that cost that it would be uneconomical  
5 to pursue that on a three hundred and twenty or less than a  
6 six hundred and forty acre unit.

7 Q I show you what has been marked as Exhibit Number  
8 Three and ask you to identify it?

9 A This is a Form G-1 that we send into the Railroad  
10 Commission, it is in effect a completion form.

11 Q And this was on which well?

12 A It was on the Comanche Unit.

13 Q And Exhibit Number Four?

14 A It's the Railroad Commission of Texas Form P-7 which  
15 is an application for discovery allowable in a new field  
16 designation.

17 Q Exhibit Number Five?

18 A This is an analysis of the gas from the No. 1  
19 Comanche Unit.

20 Q Okay. And Exhibit Number Six?

21 A These are the production figures from the commercial  
22 service, Dwights, which shows, and I have underlined in red  
23 the bottom-hole pressures in the producing wells in the  
24 Crittenden Field from the Atoka. The pressures are all at  
25 around a five thousand, twenty-five pound bottom-hole pressure



1 at the present time. There are two of the wells that are  
2 making water at the present time that have not had a bottom-hole  
3 pressure taken in the last two or three years.

4 Q Which are those two?

5 A Those are the Tubb Unit 23 and the Tubb Unit 22.

6 Q Exhibit Number Seven?

7 A This is a Notice of Hearing from the Railroad  
8 Commission on the application of Gifford, Mitchell and  
9 Wisenbaker for the adoption of temporary field rules for the  
10 Comanche Morrow Field in Winkler County, Texas.

11 Q In your opinion, Mr. Gifford, will a well located  
12 at this particular location be able to economically and  
13 efficiently drain a six hundred and forty acre spacing  
14 proration unit?

15 A Yes.

16 Q In your opinion will the granting of this application  
17 be in the best interests of conservation, the prevention of  
18 waste and the protection of correlative rights?

19 A Yes.

20 Q Were Exhibits One through Seven either prepared by  
21 you directly or compiled under your direction and supervision?

22 A Yes, they were.

23 MR. KELLAHIN: We move the introduction of Exhibits  
24 One through Seven.

25 MR. NUTTER: Applicant's Exhibits One through Seven

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1 will be admitted into evidence.

2 (THEREUPON, Applicant's Exhibits One through  
3 Seven were admitted into evidence.)

4 MR. KELLAHIN: That concludes our direct examination,  
5 Mr. Nutter.

7 CROSS EXAMINATION

8 BY MR. NUTTER:

9 Q Mr. Gifford, this Exhibit Number Two is your AFE for  
10 the well, two point four million dollars, this is the estimate  
11 of taking a well to the Fusselman, is that correct?

12 A Yes, that is correct.

13 Q Okay, what would be an estimate for drilling a well  
14 to the Morrow formation?

15 A It's one million, one hundred and sixty-three  
16 thousand dollars to go to the Morrow only.

17 Q Now, in response to a question from Mr. Kellahin  
18 you said that you didn't believe drilling two point four  
19 million dollar wells was economical on three hundred and twenty  
20 acre spacing, what about one point one million dollars?

21 A Well, we still feel that that would be economically  
22 unfeasible at that price.

23 Q Now, Exhibit Number Six is a computation of production  
24 and cumulative production from some wells. Now, those are  
25 the wells that are in the Atoka formation in the Crittenden

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1 area, is that correct?

2 A That is correct.

3 Q What has been the cumulative recovery to date on  
4 some of these wells?

5 A The cumulative production has been in the twenty  
6 billion cubic feet range of the older wells. Now, they're  
7 projected to approximately thirty billion cubic feet per well  
8 out of the Atoka.

9 Q On six hundred and forty acres?

10 A On six hundred and forty acres.

11 Q Now, I guess the cumulative production on each of  
12 these pages in this exhibit that are underlined is the figure  
13 that is underlined in black?

14 A In black, that is correct.

15 Q And that's to April of 1976, I think?

16 A That's correct.

17 Q Now, what is the significance of the figure that  
18 is underlined in orange?

19 A That is the present bottom-hole pressure in the wells  
20 that the pressure has been able to have been taken in the past  
21 six months.

22 Q And it's in the neighborhood of five thousand pounds?

23 A A little over five thousand pounds in each case.

24 Q And is the pressure similar for each of the wells?

25 A Yes, it is.

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1 Q Indicating that there is --

2 A That there is communication.

3 Q That communication exists between the six hundred  
4 and forty acre spaced wells?

5 A Yes.

6 Q And the original pressure was in what magnitude?

7 A The original pressure was in the magnitude of eleven  
8 thousand, five hundred to twelve thousand pounds.

9 Q I see. Is this gas classified as a sweet or a  
10 sour gas, Mr. Gifford?

11 A It's a sweet gas. It will carry an estimated fifteen  
12 barrels of condensate per million and it has a BTU rating of --  
13 I think it's one thousand, seventy or something in that  
14 neighborhood.

15 Q And hydrogen sulfide is not a big problem?

16 A No problem here at all.

17 MR. NUTTER: Are there any further questions of  
18 Mr. Gifford?

19 MR. KELLAHIN: No, sir.

20 MR. NUTTER: He may be excused.

21 (THEREUPON, the witness was excused.)

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

23 MR. KELLAHIN: No, sir.

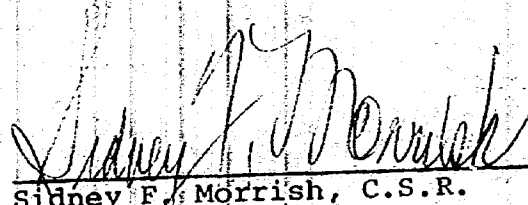
24 MR. NUTTER: Does anyone have anything they wish to  
25 offer in Case 5777? We will take the case under advisement.

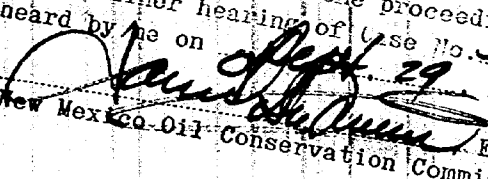
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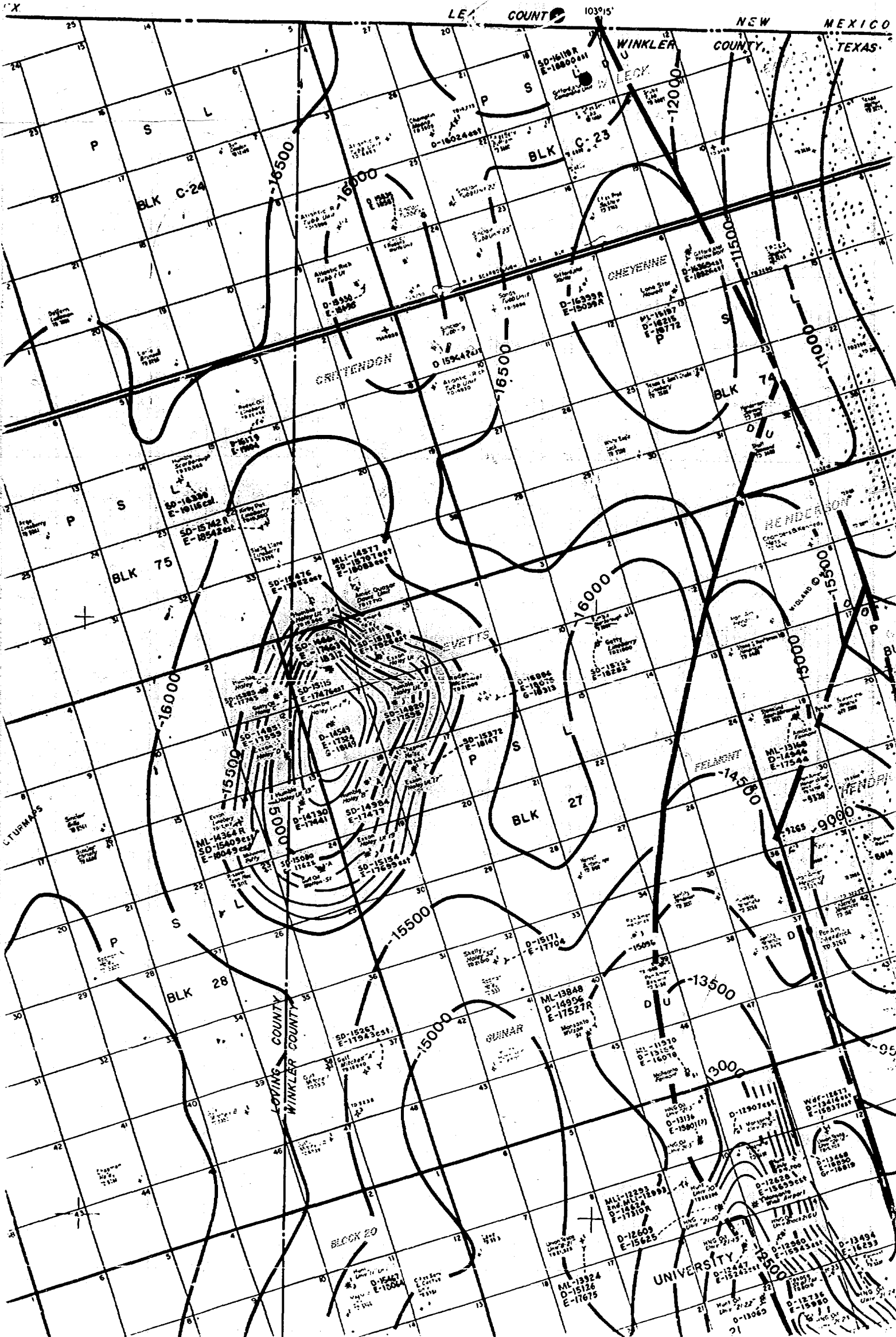
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REPORTER'S CERTIFICATE

1  
2 I, SIDNEY F. MORRISH, a Certified Shorthand Reporter,  
3 do hereby certify that the foregoing and attached Transcript  
4 of Hearing before the New Mexico Oil Conservation Commission  
5 was reported by me, and the same is a true and correct record  
6 of the said proceedings to the best of my knowledge, skill and  
7 ability.

8  
9   
10 Sidney F. Morrish, C.S.R.  
11  
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I do hereby certify that the foregoing is  
a complete record of the proceedings in  
the Examiner hearing of Case No. 5777  
heard by me on Sept 29, 1976  
  
New Mexico Oil Conservation Commission Examiner



CASE 5776: Application of Continental Oil Company for an unorthodox location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its James Ranch Unit Well No. 9 to be drilled at a point 1980 feet from the North line and 660 feet from the West line of Section 31, Township 22 South, Range 31 East, Los Medanos-Morrow Gas Pool, Eddy County, New Mexico, the N/2 of said Section 31 to be dedicated to the well.

*Permit* CASE 5777: Application of Gifford & Mitchell and M. B. Wisenbaker for pool creation, pool rules, and a non-standard gas spacing unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new gas pool for ~~Stoka~~ <sup>Horse Back</sup> production for its Horseback Well No. 1 located 1000 feet from the South line and 1980 feet from the East line of Section 33, Township 26 South, Range 36 East, Lea County, New Mexico, the promulgation of pool rules therefor, including a provision for 640-acre spacing and approval for a 589.52-acre non-standard gas spacing unit comprising all of partial Sections 33 and 34 of the aforesaid township.

CASE 5778: Application of Gas Company of New Mexico for underground gas storage findings, Eddy County, New Mexico. Applicant, in the above-styled cause, pursuant to Section 65-9-5 NMSA 1953 Comp., seeks a decision from the Commission containing findings as to the propriety of utilization for underground gas storage of the sub-surface strata from the top of the Morrow elastic stratum to the top of the Barnett stratum underlying Sections 15, 16, 17, 20, 21, 22, 27, 28, and 29, Township 16 South, Range 27 East, Eddy County, New Mexico.

CASE 5779: Application of Agua, Inc. for an extension of time and amendment of Order No. R-4495-A, as amended by R-4495-D, Lea County, New Mexico. Applicant, in the above-styled cause, seeks amendment of Order No. R-4495-A, as amended by Order No. R-4495-D to permit disposal, after the current October 1, 1976, deadline, of produced salt water through perforations from 4230 feet to 4320 feet in its SWD Well No. C-2, located in Unit C of Section 2, Township 22 South, Range 32 East, Lea County, New Mexico. Applicant seeks the amendment of said order to permit such disposal for an additional 30-day period or until it is able to get electrical power to its Blinbry-Drinkard SWD System Well No. A-22, located in Unit A of Section 22, Township 22 South, Range 37 East, Lea County, New Mexico, whichever comes later.

CASE 5262: (Reopened) (Continued from September 1, 1976, Examiner Hearing)

In the matter of Case 5262 being reopened pursuant to the provisions of Order No. R-4822-B, which order extended the special pool rules for Southwest Media-Entrada Oil Pool, Sandoval County, New Mexico, including a provision for 160-acre spacing and proration units and a special depth bracket allowable of 750 barrels of oil per day. All interested parties may appear and show cause why said pool should not be developed on 40-acre spacing and why the special depth bracket allowable should not be rescinded.

CASE 5736: (Continued from September 1, 1976, Examiner Hearing)

Application of BCO Inc. for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle production from the Basin Dakota Gas Pool and Lybrook-Gallup Oil Pool and undesignated Greenhorn and Mancos production in the wellbore of its Dunn Well No. 2, located in Unit F of Section 10, Township 23 North, Range 7 West, Rio Arriba County, New Mexico.



Dockets Nos. 27-76 and 28-76 are tentatively set for hearing on October 13 and 27, 1976. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - SEPTEMBER 29, 1976

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

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

- CASE 5768: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Service Drilling Company, The Travelers Indemnity Company, and all other interested parties to appear and show cause why the Gonzales-Pittman Well No. 1, located in Unit M of Section 24, Township 21 North, Range 21 East, Mora County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.
- CASE 5769: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Juanita Frank, The Aetna Casualty and Surety Company, and all other interested parties to appear and show cause why the Greathouse Frank Well No. 2, located in Unit C of Section 10, Township 23 North, Range 1 West, Rio Arriba County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.
- CASE 5770: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit George H. Krause, The Hartford Accident and Indemnity Company, and all other interested parties to appear and show cause why the Krause Beck Well No. 1, located in Unit J of Section 10, Township 29 North, Range 12 West, San Juan County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.
- CASE 5771: Application of Yates Petroleum Corporation for compulsory pooling and an unorthodox location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the W/2 of Section 22, Township 17 South, Range 26 East, Eddy County, New Mexico, to be dedicated to its Tom Brown GO Com Well No. 1 to be drilled at an unorthodox location 660 feet from the North line and 1920 feet from the West line of said Section 22. 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 5772: 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 Federal BZ Well No. 16 to be drilled at a point 1980 feet from the North line and 660 feet from the East line of Section 28, Township 17 South, Range 25 East, Eddy County, New Mexico, to test the Morrow formation, the N/2 of said Section 28 to be dedicated to the well.
- CASE 5773: Application of Yates Petroleum Corporation for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the North Millman Unit Area comprising 2,017 acres, more or less, of State lands in Township 19 South, Range 23 East, Eddy County, New Mexico.
- CASE 5774: Application of Belco Petroleum Corporation for compulsory pooling and an unorthodox location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the N/2 of Section 31, Township 21 South, Range 27 East, Eddy County, New Mexico, to be dedicated to its Mollie Well No. 1 to be drilled at an unorthodox location 1100 feet from the North line and 1500 feet from the East line of said Section 31. 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 5775: Application of Cities Service Oil Company for compulsory pooling and an unorthodox well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the W/2 of Section 30, Township 21 South, Range 27 East, Eddy County, New Mexico, to be dedicated to its Tracy "E" Well No. 1 to be drilled at an unorthodox location 1880 feet from the North line and 660 feet from the West line of said Section 30. 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.



682-6282

RAILROAD COMMISSION OF TEXAS  
OIL AND GAS DIVISIONForm G-1  
Rev. 7/7/75GAS WELL BACK PRESSURE TEST  
COMPLETION OR RECOMPLETION REPORT AND LOG

1. FIELD NAME (as per RRC Records or Wildcat)	2. LEASE NAME	7. RRC District
Wildcat	Comanche Unit	8
3. OPERATOR		8. RRC Identification Number
Gifford, Mitchell & Wisenbaker		not assigned
4. ADDRESS		9. Well Number
Suite 1280 Midland National Bank Tower Midland, TX 79701		1
5. If Operator has changed within last 60 Days -- Give former Operator		10. County
NA		Winkler
6. LOCATION (Section, Block, and Survey)		11. Purpose of Test
Section 13, Block C-23, PSL Survey		Initial Potential <input checked="" type="checkbox"/>
		Retest <input type="checkbox"/>
		Reclass <input type="checkbox"/>
12. Pipe Line Connection	13. If Workover, give former Field (with Reservoir)	14. Completion Date
Not connected - to be Lone Star	NA	7-13-76
15. List of Offset Operators Notified and Date of Notification	16. Type of Electric or other Log Run	
Lone Star 7-7-76	Sonic-Neutron-Density-DLL-DIL	

Section I GAS MEASUREMENT DATA & HDT										
Date of Test		Gas Measurement Method (Check One)								Gas produced during test
7-14-76		Orifice Meter <input checked="" type="checkbox"/>	Positive Choke <input type="checkbox"/>	Orifice Vent Meter <input type="checkbox"/>	Pitot Tube <input type="checkbox"/>	Critical-flow Prover <input type="checkbox"/>	375 MCF			
Run No.	Line Size	Orifice or Choke Size	24 Hr. Coeff. Orif or Choke	Static P <sub>m</sub> or Choke Press	Diff. h <sub>w</sub>	Flow Temp. °F	Temp. Factor F <sub>tt</sub>	Gravity Factor F <sub>g</sub>	Compress Factor F <sub>pv</sub>	Volume MCF/DAY
1	4.0	3.00	68381	150	18	60	1.000	1.00	1.015	3797
2	4.0	3.00	68381	200	22	55	1.004	1.00	1.020	4841
3	4.0	3.00	68381	200	33	50	1.009	1.00	1.020	5918
4	4.0	3.00	68381	270	32	42	1.017	1.00	1.028	6830

Section II FIELD DATA AND PRESSURE CALCULATIONS					
Gravity (Dry Gas)	Gravity Liquid Hydrocarbon	Gas-Liquid Hydro Ratio	Gravity of Mixture	Avg. Shut-In Temp.	Bottom Hole Temp.
6	---	---	G <sub>mix</sub> = .600	137 °F	210°F @ 15575 (Depth)
D <sub>eff</sub> <sup>8/3</sup> = 16.99		√T <sub>i</sub> = √598 = 2446		√GL = √9339 = 96.64	
C = $\frac{1118 \times (D_{eff})^{8/3}}{\sqrt{T}}$ = 776		√GL = $\frac{C}{C}$ = .12448			

Run No.	Time of Run Min.	Choke Size	Wellhead Press P <sub>w</sub> PSIA	Wellhead Flow Temp. °F	P <sub>w</sub> <sup>2</sup> (Thousands)	R	R <sup>2</sup> (Thousands)	P <sub>i</sub>	P <sub>w</sub> /P <sub>i</sub>
Shut-In			9693	64	93947				
1	30	2/64	9124	64	83241	312.14	97.6	9129	.999
2	30	4/64	8912	66	79418	472.6	223.4	8924	.999
3	30	8/64	8727	68	76154	602.6	363.1	8747	.998
4	30	10/64	8573	70	73490	850.1	722.7	8615	.995
Run No.	F	K	S = $\frac{1}{z}$	E <sub>ks</sub>	P <sub>i</sub> and P <sub>s</sub>	P <sub>i</sub> <sup>2</sup> and P <sub>s</sub> <sup>2</sup>	P <sub>i</sub> <sup>2</sup> - P <sub>s</sub> <sup>2</sup>	Angle of Slope	
Shut-In		.2925	.663	1.215	11774	138616		θ = _____ n = _____	
1	.999	.2922	.687	1.222	11157	124478	14137	Absolute Open Flow	
2	.998	.2921	.696	1.226	10937	119609	19006	36,100 MCF/DAY	
3	.998	.2919	.705	1.229	10747	115492	23124		
4	.997	.2915	.712	1.231	10603	112433	26182		

An inclination survey has been run in accordance with Statewide Rule 11 and the results are available upon request. Maximum horizontal displacement was 1551.9 feet at a measured depth of 21,384 feet. Note: Combined Totco's ran by drilling company and Deviation Surveys by Schlumberger determine maximum horizon displacement.

Signature of Authorized Representative \_\_\_\_\_ Name of Company Conducting Survey \_\_\_\_\_  
All casing was cemented in accordance with Statewide Rule 13 or a written exception thereto. Cementing tickets and/or other data are available upon request.

Signature of Cementer or Authorized Representative

Name of Cementing Company

## CERTIFICATE:

I declare under penalties prescribed in Article 6036c, R.C.S., that I am authorized to make this report, that this report was prepared by me or under my supervision and direction and that data and facts stated therein are true, correct, and complete, to the best of my knowledge.

*Mark W. Kester*  
REPRESENTATIVE OF COMPANY

Petroleum-Engineer - Agent

8/ /76

BEFORE EXAMINER NUTTER  
OIL CONSERVATION COMMISSION

100 EXHIBIT NO. 3

CASE NO. 5777

**SECTION III DATA ON WELL COMPLETION AND LOG (Not Required on Retest)**

17. Type of Completion: New Well ☒ Deepening ☐ Plug Back ☐ Other ☐ 18. Date Permit Issued: 12/10/75

19. Notice of Intention to Drill this Well was filed in Name of: Gifford, Mitchell & Wisenbaker 20. If Special Permit, Give Permit Number: NA

21. Number of Producing Wells on this Lease in This Field (Reservoir) including this Well: one 22. Total Number of Acres in this Lease: 701.45

23. Date Plug Back, Deepening, Work Over or Drilling Operations: 12/12/75 Commenced: 6/25/76 Completed: NA 24. Distance to Nearest Well, Same Lease & Reservoir: NA

25. Location of Well, Relative to Nearest Lease Boundaries of Lease on which this Well is Located: 1980' East Line of The Comanche Unit 1980' South Line And 1980' East Feet From Lease

26. Elevation (DF, RKB, RT, GR, ETC): KB=2914' DF=2913' & GL=2888' 27. Was Directional Survey Made: Yes ☒ No ☐

28. Top of Pay: 15,550' 29. Total Depth: 21,844' 30. P.B. Depth: 17,251' 31. Surface Casing Determined By: Recommendation of Texas Water Development Board ☒ Field Rules ☐ Railroad Commission (Special) ☐

32. Is Well Multiple Completion? Yes ☐ No ☒ 33. If Multiple Completion List All Reservoir Names (Completions in this Well): NA 34. Intervals Drilled By: All Rotary Tools: None Cable Tools: None

35. Name of Drilling Contractor: Parker Drilling Company 36. Is Cementing Affidavit Attached? Yes ☐ No ☒

37. CASING RECORD (Report All Strings Set in Well)

CASING SIZE	WT #/ FT.	DEPTH SET	MULTI STAGE TOOL DEPTH	TYPE & AMOUNT CEMENT (Sacks)	HOLE SIZE	TOP OF CEMENT	SLURRY VOL. cu. ft.
20"	94# & 133#	1255'	None	Trin Lite WT 1300 Sx & Class C 500 Sx	26"	Circ	3013
13 3/8"	16#.68#.72#	4728'	None	Trin Lite WT 800 Sx & Class C 500 Sx	17 1/2"	not determined	2100
9 5/8"	47# 53#	13,486'	None	Howco Lite Wt 1000 Sx Class H 1000 Sx	8 1/3"	not determined	4234

38. LINER RECORD

Size	Top	Bottom	Sacks Cement	Screen
7 3/4"	13,234'	18,181'	1150 Sx Class "H"	None

39. TUBING RECORD

Size	Depth Set	Packer Set	Producing Interval (this completion) Indicate Depth of Perforations or Open Hole
3 1/2" OD	15,310'	15,303' & 15,310'	From 15,560' To 15,570'

41. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

Depth Interval	Amount and Kind of Material Used
15,560' to 15,570'	Natural completion - No stimulation

42. FORMATION RECORD (LIST DEPTHS OF PRINCIPAL GEOLOGICAL MARKERS AND FORMATION TOPS)

Formations	Depth	Formations	Depth
Bone Spring	5,791'	Devonian	19,006'
Atoka Sand	14,750'	Montoya	20,106'
Morrow Sand	15,550'	Simpson	20,492'
Barnett	16,450'	Ellenburger	21,488'
Mississippian	18,114'		
Woodford	18,583'		

REMARKS Plug back as follows: 21,400' to 21,016' w/ 75sx  
9,000' to 18,616' w/ 75sx  
CIBP to 17,990'  
17,990' to 17,251' w/ 150sx

Docket No. 29-76

Dockets Nos. 31-76 and 32-76 are tentatively set for hearing on November 10 and November 23, 1976. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - OCTOBER 27, 1976

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

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

CASE 5768: (Continued from September 29, 1976, Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Service Drilling Company, The Travelers Indemnity Company, and all other interested parties to appear and show cause why the Gonzales-Pittman Well No. 1, located in Unit M of Section 24, Township 21 North, Range 21 East, Mora County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 5785: (Continued from October 13, 1976, Examiner Hearing)

Application of Doyle Hartman for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Seven Rivers-Queen formation underlying the NE/4 NE/4, NW/4 NE/4, SW/4 NE/4, and SE/4 NE/4 of Section 19, Township 24 South, Range 37 East, Langlie-Mattix Pool, Lea County, New Mexico, to form four 40-acre proration units to be dedicated to four oil wells to be drilled at standard locations on said tracts. Also to be considered will be the cost of drilling and completing said wells 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 wells and a charge for risk involved in drilling said wells.

CASE 5574: (Reopened) (Continued from October 13, 1976, Examiner Hearing)

In the matter of Case 5574 being reopened pursuant to the provisions of Order No. R-5118 which order established a temporary special depth bracket allowable of 750 barrels of oil per day for the Eagle Mesa-Entrada Oil Pool, Sandoval County, New Mexico. All interested parties may appear and show cause why said special depth bracket allowable should not be rescinded.

CASE 5789: Application of Amoco Production Company for salt water disposal well, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Fusselman formation through the perforated interval from 8313 feet to 8538 feet in its Swearingen "C" Well No. 2 located in Unit M of Section 18, Township 5 South, Range 33 East, Petersen-Fusselman Pool, Roosevelt County, New Mexico.

CASE 5790: Application of Dome Petroleum Corporation for pool creation and assignment of a discovery allowable, McKinley County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new oil pool for Entrada production and the assignment of approximately 58,770 barrels of oil discovery allowable to the discovery well, being the Federal 21 Well No. 1 located in Unit K of Section 21, Township 20 North, Range 5 West, McKinley County, New Mexico.

CASE 5791: Application of Texaco Inc. for a non-standard gas proration unit and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 320-acre non-standard Eumont gas proration unit comprising the E/2 SE/4, SW/4 SE/4, and SE/4 SW/4 of Section 23; the W/2 NW/4 of Section 25; and the E/2 NE/4 of Section 26, all in Township 19 South, Range 36 East, Lea County, New Mexico, to be simultaneously dedicated to applicant's William Weir Wells Nos. 1 and 2 at unorthodox locations in Unit E of said Section 25 and Unit N of said Section 23, respectively.

CASE 5792: Application of Dugan Production Corporation for downhole commingling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle Angels Peak-Gallup and Basin-Dakota production in the wellbore of its McAdams Well No. 3 located in Unit H of Section 34, Township 27 North, Range 10 West, San Juan County, New Mexico.

CASE 5793: Application of Dugan Production Corporation for an unorthodox gas well location, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Sherman Edward Well No. 2A, to be drilled at a point 2500 feet from the North line and 510 feet from the West line of Section 3, Township 29 North, Range 5 West, Blanco Mesaverde Gas Pool, Rio Arriba County, New Mexico, the N/2 of said Section 3 to be dedicated to the well.

CASE 5776: (Continued & Readvertised)

Application of Continental Oil Company for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its James Ranch Unit Well No. 8 to be drilled at a point 1980 feet from the North line and 660 feet from the West line of Section 31, Township 22 South, Range 31 East, Los Medanos-Morrow Gas Pool, Eddy County, New Mexico, the N/2 of said Section 31 to be dedicated to the well.

CASE 5794: Application of Continental Oil Company for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the W/2 of Section 31, Township 22 South, Range 31 East, Los Medanos Field, Eddy County, New Mexico, to be dedicated to a well to be drilled at a standard location in Unit L of said Section 31. 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 5795: Application of Continental Oil Company for an exception to the provisions of Order No. R-1670, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Rule 21(A) of the General Rules and Regulations for the prorated gas pools of Northwestern New Mexico contained in Order No. R-1670, to permit the reporting of Basin Dakota production from wells on its Northeast Haynes Lease in Township 24 North, Range 5 West, Rio Arriba County, New Mexico, without the necessity of separately measuring the production from each well.

CASE 5777: (Continued & Readvertised)

Application of Gifford & Mitchell and M. B. Wisenbaker for pool creation, pool rules, and a non-standard gas spacing unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new gas pool for Pennsylvanian production for its Horse Back Well No. 1 located 1000 feet from the South line and 1980 feet from the East line of Section 33, Township 26 South, Range 36 East, Lea County, New Mexico, the promulgation of pool rules therefor, including a provision for 640-acre spacing and approval for a 589.52-acre non-standard gas spacing unit comprising all of partial Sections 33 and 34 of the aforesaid township.

Docket No. 30-76

Dockets Nos. 31-76 and 32-76 are tentatively set for hearing on November 10 and November 23, 1976. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: COMMISSION HEARING - THURSDAY - NOVEMBER 4, 1976

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

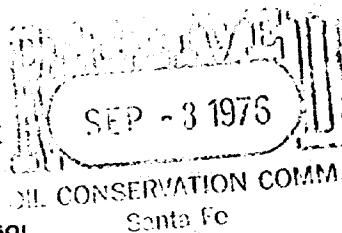
CASE 5743: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit John W. Adams, Executor of Estates of R. W. and June Adams; and Ruth McGahey, Fred McGahey and David McGahey dba Adams & McGahey, American Employers' Insurance Company, and all other interested parties to appear and show cause why the following wells located in Township 21 North, Range 30 East, Harding County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program:

Gonzales Well No. 2, located in Unit P of Section 9; Adams & McGahey Well No. 1, located in Unit B of Section 16; and Gonzales "A" Well No. 1, located in Unit H of Section 32.

Upon application of John W. Adams, this case will be heard De Novo pursuant to the provisions of Rule 1220.

JASON W. KELLAHIN  
ROBERT E. FOX  
W. THOMAS KELLAHIN

KELLAHIN AND FOX  
ATTORNEYS AT LAW  
500 DON GASPAR AVENUE  
POST OFFICE BOX 1769  
SANTA FE, NEW MEXICO 87501



*Case*  
*5777*

September 2, 1976

TELEPHONE 982-4315  
AREA CODE 505

Mr. Joe Ramey, Secretary-Director  
New Mexico Oil Conservation Commission  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Dear Mr. Ramey:

Enclosed please find the original and two copies of the application of Gifford & Mitchell & M. B. Wisenbaker for approval of a non-standard unit and pool rules. We would appreciate this being set for hearing on the 29th of September.

Yours very truly,

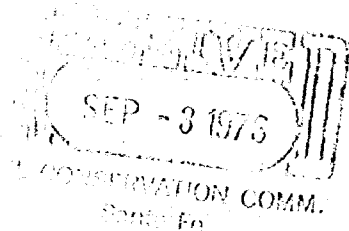
*Jason W. Kellahin*  
Jason W. Kellahin

CC: Charles C. Aldridge, Esq.

JWK:kjf

Enclosure

Case  
5777



BEFORE THE  
OIL CONSERVATION COMMISSION OF NEW MEXICO

IN THE MATTER OF THE APPLICATION  
OF GIFFORD & MITCHELL & M. B.  
WISENBAKER FOR APPROVAL OF A NON-  
STANDARD UNIT AND POOL RULES,  
LEA COUNTY, NEW MEXICO.

A P P L I C A T I O N

Come now Gifford & Mitchell and M. B. Wisenbaker, and  
apply to the oil Conservation Commission of New Mexico for  
approval of pool rules and a non-standard spacing and proration  
unit for their No. 1 Horseback well consisting of approximately  
589.52 acres, more or less, according to the Government survey,  
and in support thereof would show the Commission:

1. Applicants propose to drill their No. 1 Horseback well  
1000 feet from the South line, and 1980 feet from the East  
line of Section 33, Township 26 South, Range 36 East, N.M.P.M.,  
Lea County, New Mexico.
2. The subject well is projected to test the Pennsylvanian  
and Devonian formations, testing the Atoka in the Pennsylvanian,  
and the Fusselman zone at approximately 19,500 feet. The well  
may also be projected to the Ellenburger at approximately  
22,500 feet.
3. Section 33 and 34, Township 26 South, Range 36 East  
are located on the New Mexico-Texas state line, and are short  
sections. Section 33 contains 294.92 acres, and Section 34,  
294.60 acres, according to the government survey of said  
sections.

4. Applicant proposes to dedicate Sections 33 and 34 to

*non-std gas spacing unit comp all of  
creation of a new <sup>gas</sup> pool for Atoka prod*



the proposed well, creating a unit of 589.52 acres, for any gas production encountered, which more nearly accords with spacing across the state line, offsetting the proposed unit. The applicant further proposes adoption of pool rules for Pennsylvanian gas production, Devonian or Ellenburger production.

5. The discovery well in the area is applicants' No. 1 Comanche Unit well, located in Section 13, Block C-23, Public School Survey, Winkler County, Texas. This well is completed for production from the ~~Atoka~~<sup>Morrow</sup> formation at a depth of approximately ~~18,500~~<sup>15,500</sup> feet. Application is being made to the Texas Railroad Commission for 640-acre spacing for this well, and a proposed well, to be located in the adjacent Section 12.

6. The Crittendon Field, lying due South of the Comanche Unit well, also producing from the Atoka formation, at approximately ~~18,500~~<sup>14,500</sup> feet, is spaced on 640-acre spacing and proration units.

7. Evidence presently available indicates that one well completed in any of the above-mentioned formations will adequately and economically drain and develop the proposed unit. Approval of this application will result in the production of oil and gas, or either of them, that would not otherwise be recovered, thereby preventing waste. Correlative rights will not be impaired by approval of this application.

WHEREFORE applicant prays that this application be set for hearing before the Commission's duly appointed examiner



Case 5777

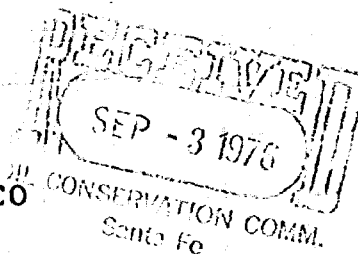
at the hearing scheduled for September 29, 1976, and after notice and hearing as required by law, enter its order approving the proposed unit as applied for.

Respectfully submitted,

GIFFORD & MITCHELL  
M. B. WISENBAKER

By Jason W. Kellah  
KELLAHIN & FOX  
P. O. Box 1769  
Santa Fe, New Mexico 87501

BEFORE THE  
OIL CONSERVATION COMMISSION OF NEW MEXICO



IN THE MATTER OF THE APPLICATION  
OF GIFFORD & MITCHELL & M. B.  
WISENBAKER FOR APPROVAL OF A NON-  
STANDARD UNIT AND POOL RULES,  
LEA COUNTY, NEW MEXICO.

A P P L I C A T I O N

Come now Gifford & Mitchell and M. B. Wisenbaker, and apply to the oil Conservation Commission of New Mexico for approval of pool rules and a non-standard spacing and proration unit for their No. 1 Horseback well consisting of approximately 589.52 acres, more or less, according to the Government survey, and in support thereof would show the Commission:

1. Applicants propose to drill their No. 1 Horseback well 1000 feet from the South line, and 1980 feet from the East line of Section 33, Township 26 South, Range 36 East, N.M.P.M., Lea County, New Mexico.

2. The subject well is projected to test the Pennsylvanian and Devonian formations, testing the Atoka in the Pennsylvanian, and the Fusselman zone at approximately 19,500 feet. The well may also be projected to the Ellenburger at approximately 22,500 feet.

3. Section 33 and 34, Township 26 South, Range 36 East are located on the New Mexico-Texas state line, and are short sections. Section 33 contains 294.92 acres, and Section 34, 294.60 acres, according to the government survey of said sections.

4. Applicant proposes to dedicate Sections 33 and 34 to

the proposed well, creating a unit of 589.52 acres, for any gas production encountered, which more nearly accords with spacing across the state line, offsetting the proposed unit. The applicant further proposes adoption of pool rules for Pennsylvanian gas production, Devonian or Ellenburger production.

5. The discovery well in the area is applicants' No. 1 Comanche Unit well, located in Section 13, Block C-23, Public School Survey, Winkler County, Texas. This well is completed for production from the Atoka formation at a depth of approximately 18,500 feet. Application is being made to the Texas Railroad Commission for 640-acre spacing for this well, and a proposed well, to be located in the adjacent Section 12.

6. The Crittendon Field, lying due South of the Comanche Unit well, also producing from the Atoka formation, at approximately 18,500 feet, is spaced on 640-acre spacing and proration units.

7. Evidence presently available indicates that one well completed in any of the above-mentioned formations will adequately and economically drain and develop the proposed unit. Approval of this application will result in the production of oil and gas, or either of them, that would not otherwise be recovered, thereby preventing waste. Correlative rights will not be impaired by approval of this application.

WHEREFORE applicant prays that this application be set for hearing before the Commission's duly appointed examiner

Case 5777

at the hearing scheduled for September 29, 1976, and after notice and hearing as required by law, enter its order approving the proposed unit as applied for.

Respectfully submitted,

GIFFORD & MITCHELL  
M. B. WISENBAKER

By Jason W. Kellahin  
KELLAHIN & FOX  
P. O. Box 1769  
Santa Fe, New Mexico 87501

Case 5777

SEP 23 1976  
OIL CONSERVATION COMMISSION  
Santa Fe

BEFORE THE  
OIL CONSERVATION COMMISSION OF NEW MEXICO

IN THE MATTER OF THE APPLICATION  
OF GIFFORD & MITCHELL & M. B.  
WISENBAKER FOR APPROVAL OF A NON-  
STANDARD UNIT AND POOL RULES,  
LEA COUNTY, NEW MEXICO.

A P P L I C A T I O N

Come now Gifford & Mitchell and M. B. Wisenbaker, and apply to the oil Conservation Commission of New Mexico for approval of pool rules and a non-standard spacing and proration unit for their No. 1 Horseback well consisting of approximately 589.52 acres, more or less, according to the Government survey, and in support thereof would show the Commission:

1. Applicants propose to drill their No. 1 Horseback well 1000 feet from the South line, and 1980 feet from the East line of Section 33, Township 26 South, Range 36 East, N.M.P.M., Lea County, New Mexico.
2. The subject well is projected to test the Pennsylvanian and Devonian formations, testing the Atoka in the Pennsylvanian, and the Fusselman zone at approximately 19,500 feet. The well may also be projected to the Ellenburger at approximately 22,500 feet.
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WHEREFORE applicant prays that this application be set for hearing before the Commission's duly appointed examiner

Case  
577

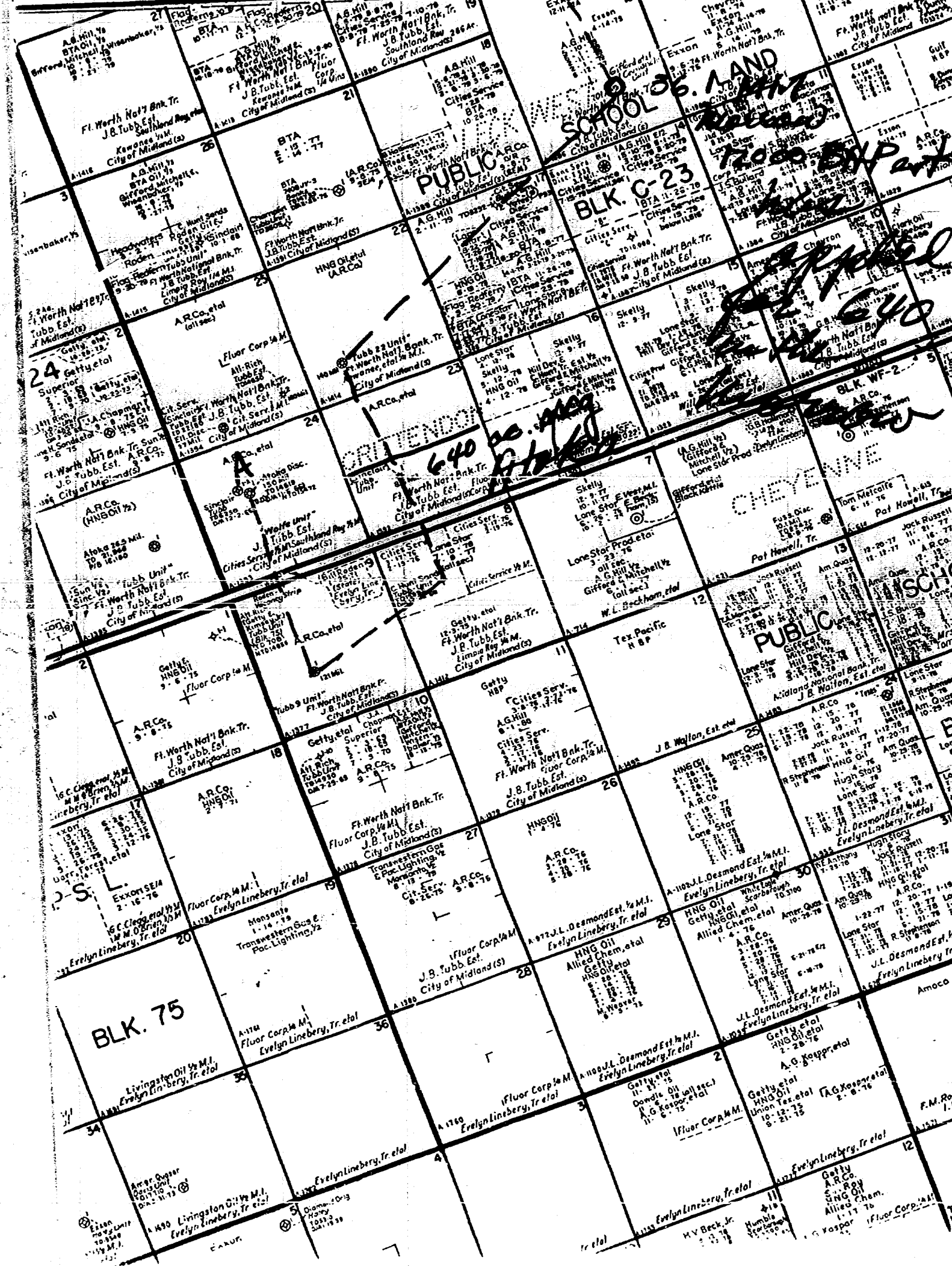
at the hearing scheduled for September 29, 1976, and after  
notice and hearing as required by law, enter its order  
approving the proposed unit as applied for.

Respectfully submitted,

GIFFORD & MITCHELL  
M. B. WISEBAKER

By Jason W. Kellahin  
KELLAHIN & FOX  
P. O. Box 1769  
Santa Fe, New Mexico 87501

U.S.	State	State	State	State	State	State	State	State	State
Amer. Trading 9-1-80 12281	D.R. Ford & R.L. Hays Fed. 1-1-80 048-23-68	BTA 23198	Hudson Hudson 8-1-80 1901	BTA 4-1-81 19431	BTA 0-1-81 1-1-81 1212	Exxon 2-1-79 2-1-79 7-21-74 HNG Oil 10-18-79 10-31-79	Exxon 4-1-79 4-1-79 131-15	Exxon 2-1-81 2-1-81 2512	Exxon 2-1-81 2-1-81 2512
Max Wilson Singer, et al 12285 10330 146-9-84	Gulf 1-1-80 1965	BTA 1-1-80 23198	BTA 7-8-79	BTA 1-1-80 23198	BTA 1-1-80 23198	State	State	State	State
Exxon 1-1-80 23308	U.S.	U.S.	U.S.	U.S.	U.S.	State	State	State	State
Amoco 2-1-80 10-1-80 10-1-80	BTA 7-8-79 1-1-80 14011	BTA 7-8-79 1-1-80 14011	BTA 7-8-79 1-1-80 14011	BTA 7-8-79 1-1-80 14011	BTA 7-8-79 1-1-80 14011	State	State	State	State
State	State	State	State	State	State	State	State	State	State





22

PLOT  
SYMBOLS:

WHSIP = 0

BHP/Z = Z

WHSIP &amp; BHP COMMON = C

TEMP GRAD: 0.700

PRESSURE

10000

9000

8000

7000

6000

5000

4000

3000

2000

1000

0

→ MILLIONS

04.0

08.0

12.0

16.0

20.0

24.0

28.0

32.0

36.0

40.0

44.0

IDENTIFYING NUMBER				LOCATION		OPERATOR		WELL NAME						
080243493						ATLANTIC RICHFIELD CO		MULFE UNIT						
STATE OR PROVINCE		FIELD NUMBER		FIELD NAME					RESERVOIR					
TEXAS		21752666		CRITTENDON (PENN.)										
DIST. NO.	COUNTY OR PARISH			DATE COMP.	DATE 1ST PROD.	GAS GRAVITY	INIT. TEST DATE	INIT. POTENTIAL	INIT. WHSIP	LATEST N. FAC.	INIT. BHP/Z	Z	TOTAL DEPTH	
8	WINKLER			013068	01-68	.62	010368	150000	8584	.675	7164C		15473	1
PERIOD ENDING	MCF LAST SIX MONTHS	MCF YEARLY PRODUCTION	MMCF CUMULATIVE PRODUCTION	MMCF CUMULATIVE AT TEST	TEST DATE		POTENTIAL		WHSIP	BHP	M	BHP/Z	MCF UNL. W/	
7-69	854,684		2119.2	1650.8	02-27-69		11,987		8565	10518	C	7160	868	
1-70	801,485	1656,369	2920.7	2679.2	12-04-69		11,100							
7-70	1932,575		4853.3											
1-71	1744,929	3677,504	6598.2	5187.0	07-31-70		12,470		6310	8074	C	6449	22	
7-71	1606,712		8204.9	7411.2	03-15-71		12,270		5626	7385	C	6195	25	
1-72	1068,647	2675,359	9273.6	8593.3	02-21-71		11,600		5499	7170	C	6113	27	
7-72	1135,281		10468.9	9900.7	03-15-72		10,500		5067	6660	C	5901	28	
1-73	1044,596	2179,877	11453.5	10631.0	02-11-72		10,400		5113	6732	C	5921	30	
7-73	886,979		12340.4	12084.3	03-22-73		10,800		4340	5838	C	5485	28	
1-74	1006,869	1893,848	13347.3	12432.5	08-22-73		10,800		4359	5859	C	5496	29	
7-74	912,082		14259.4	13765.4	03-05-74		11,000		4067	5512	C	5305	30	
1-75	1076,212	1988,294	15335.6	14441.9	02-03-74		10,500		3970	5396	C	5239	31	
7-75	1916,922		17152.5	16134.9	03-19-75		10,500		3663	5024	C	5009	32	
1-76	1629,731	3446,653	18782.3											
4-76	928,360		19710.6	19616.4	03-23-76		10,300							

BEFORE EXAMINATION  
OIL CONSERVATION  
EXHIBIT  
CASE NO.

IDENTIFYING NUMBER		LOCATION		OPERATOR		WELL NAME		WELL NO.				
080243493		ATLANTIC RICHFIELD CO		NOLFE UNIT				1				
STATE OR PROVINCE		FIELD NUMBER		FIELD NAME		RESERVOIR		STATUS				
TEXAS		21752666		CRITTENDON (PENN.)				ACT NATCP SCURL				
DIST. NO.	COUNTY OR PARISH	DATE COME	DATE 1ST PROD.	GAS GRAVITY	INIT. TEST DATE	INIT. POTENTIAL	INIT. WHISIP	LATEST N FAC.	INIT. BHP/Z	TOTAL DEPTH	PERFORATIONS	WELLHEAD FLOWING PRESSURE AT END OF TEST
8	WINKLER	013068	01-68	.62	010368	150000	8584	.675	7164C	15473	14492-14514	54.1
PERIOD ENDING	MCF LAST SIX MONTHS	MCF YEARLY PRODUCTION	MMCF CUMULATIVE PRODUCTION	MMCF CUMULATIVE AT TEST	TEST DATE	POTENTIAL	WHISIP	BHP	M C	BHP/Z	FACE OF DROP INIT WHISIP	FACE OF DROP AT END OF TEST
7-69	854,884		2119.2	1650.8	02-27-69	11,987	8565	10518	C	7160	36884	20,388
1-70	801,485	1656,369	2920.7	2679.2	12-04-69	11,100						19,055
7-70	1932,575		4853.3									41,799
1-71	1744,929	3677,504	6590.2	5187.0	07-31-70	12,470	6310	8074	C	6449	2281	40,012
7-71	1608,712		8204.9	7411.2	03-15-71	12,270	5690	7385	C	6195	2561	36,532
1-72	1068,647	2675,359	9273.6	8593.3	09-21-71	11,600	5499	7170	C	6113	2786	24,088
7-72	1135,281		10408.9	9960.7	03-05-72	10,500	5067	6680	C	5901	2832	25,434
1-73	1044,596	2179,877	11453.5	10631.0	09-11-72	10,400	5113	6732	C	5921	3063	22,667
7-73	886,979		12340.4	12084.3	03-22-73	10,800	4340	5836	C	5485	2847	20,187
1-74	1006,869	1893,848	13347.3	12432.3	08-22-73	10,800	4359	5859	C	5496	2943	21,639
7-74	912,082		14259.4	13965.4	03-05-74	11,000	4087	5512	C	5305	3092	19,029
1-75	1076,212	1988,294	15335.6	14441.9	09-03-74	10,500	3970	5396	C	5239	3120	22,043
7-75	1816,922		17152.5	16134.9	03-19-75	10,500	3663	5024	C	5009	3279	35,444
1-76	1629,731	3446,653	18782.3									30,505
4-76	928,360		19710.6	19616.4	03-23-76	10,300						16,815

BEFORE EXAMINER / UTTER  
OIL CONSERVATION COMMISSION  
EXHIBIT NO. 6  
CASE NO. 5277

12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0

22

PLOT  
SYMBOLS:

WHSIP = 0

BHP/Z = Z

WHSIP &amp; BHP/Z COMMON = C

TEMP GRAD: 0.700

PRESSURE

10000

9000

8000

7000

6000

5000

4000

3000

2000

1000

0

BILLIONS →

04.0

08.0

12.0

16.0

20.0

24.0

28.0

32.0

36.0

40.0

44.0

IDENTIFYING NUMBER	LOCATION	OPERATOR	WELL NAME
080244619		ATLANTIC RICHFIELD CO	TURB 9 UNIT

STATE OR PROVINCE	FIELD NUMBER	FIELD NAME	RESERVOIR
TEXAS	2175266	CRITTENDON (PENN.)	

DIST. NO.	COUNTY OR PARISH	DATE COMP.	DATE 1ST PROD.	GAS GRAVITY	INIT. TEST DATE	UNIT. POTENTIAL	INIT. WHSIP	LATEST IN FAC.	INIT. BHP/Z	TOTAL DEPTH
0	WINKLER	081368	08-68	.63	081368	121000	8616	.767	7179C	18045

PERIOD ENDING	MCF LAST SIX MONTHS	MCF YEARLY PRODUCTION	MMCF CUMULATIVE PRODUCTION	MMCF CUMULATIVE AT TEST	TEST DATE	POTENTIAL	WHSIP	BHP	M C	BHP/Z	MCF / 5000 UNIT WHSIP
7-69	999,358		1754.6	1121.3	02-23-69	9,072	8515	10481	C	7149	11102
1-70	267,799	1967,157	2722.4	2476.9	12-04-69	9,200					
7-70	1680,290		4402.7	2883.6	01-13-70	11,308	7205	9041	C	6772	2034
1-71	1400,482	3080,772	5803.1	4608.2	08-04-70	11,450	6266	8041	C	6438	1967
7-71	1428,307		7231.4	6316.4	02-24-71	11,325	5640	7343	C	6181	2122
1-72	1023,763	2452,070	8255.2	7527.2	09-09-71	10,300	5340	7605	C	6044	2290
7-72	1142,507		9397.7	8509.6	03-09-72	10,700	4920	6606	C	5867	2449
1-73	1097,328	2239,835	10495.0	9604.9	09-13-72	10,600	4948	6557	C	5844	2619
7-73	897,574		11392.6	11136.3	03-17-73	10,800	4342	5852	C	5495	2600
1-74	1087,797	1985,371	12400.4	11542.6	09-04-73	10,900	4393	5912	C	5525	2733
7-74	875,966		13356.4	13107.9	03-12-74	11,500	4009	5455	C	5271	2849
1-75	1015,603	1891,569	14372.0	13542.1	09-06-74	11,000	3913	5340	C	5200	2875
7-75	1816,604		16188.6	15175.8	03-18-75	10,300	3644	5013	C	4998	3052
1-76	1636,815	3453,419	17825.4								
4-76	915,513		18740.9	18648.4	03-23-76	10,100					

IDENTIFYING NUMBER: 080244619 LOCATION: ATLANTIC RICHFIELD CO TUBB 9 UNIT WELL NAME: 1

STATE OR PROVINCE: TEXAS FIELD NUMBER: 21752666 FIELD NAME: CRITTENDON (PENN.) RESERVOIR: ACT GAS GATHERER: NATGP SCURL

DIST. NO.	COUNTY OR PARISH	DATE COMP.	DATE 1ST PROD.	CAS. GRAVITY	INIT. TEST DATE	INIT. POTENTIAL	INIT. WHSP	LATEST N. FAC.	INIT. BHP/2	%	TOTAL DEPTH	PERFORATIONS	WELLHEAD FLOWING PRESSURE AT END OF TEST	
8	WINKLER	081368	08-68	.63	081368	121000	8616	.767	7179	C	18045	14622-14645	54.0	
PERIOD ENDING	MCF LAST SIX MONTHS	MCF YEARLY PRODUCTION	MIMCF CUMULATIVE PRODUCTION	MIMCF CUMULATIVE AT TEST	TEST DATE	POTENTIAL	WHSP	BHP	M	C	BHP/2	MCF @ DROP INIT. WHSP	SEP. N. SOUTH CELL. FAC.	SEP. N. SOUTH CELL. RES. INCHES
7-69	999,358		1754.6	1121.3	02-23-69	9,072	8515	10481	C		7149	11102	22,276	22.3
1-70	967,799	1967,157	2722.4	2476.9	12-04-69	9,200							22,415	23.2
7-70	1080,290		4402.7	2883.6	01-19-70	11,308	7205	9041	C		6772	2044	37,085	22.1
1-71	1400,782	3080,772	5803.1	4608.2	08-04-70	11,450	6266	8081	C		6438	1961	31,550	22.5
7-71	1428,307		7231.4	6316.4	02-24-71	11,325	5640	7343	C		6181	2122	32,568	22.8
1-72	1023,763	2452,070	8255.2	7527.2	02-09-71	10,300	5340	7005	C		6044	2298	23,090	22.6
7-72	1142,507		9397.7	8909.6	03-09-72	10,700	4990	6606	C		5867	2457	26,898	23.5
1-73	1027,328	2239,835	10495.0	9604.9	02-13-72	10,600	4948	6557	C		5844	2619	25,585	23.3
7-73	897,574		11392.6	11186.3	03-17-73	10,800	4342	5852	C		5695	2606	21,742	24.2
1-74	1087,797	1985,371	12480.4	11542.6	02-04-73	10,900	4323	5912	C		5525	2733	25,602	23.5
7-74	875,966		13356.4	13107.9	03-12-74	11,500	4009	5455	C		5271	2845	19,108	21.8
1-75	1015,603	1891,569	14372.0	13542.1	02-06-74	11,000	3913	5340	C		5200	2879	23,116	22.8
7-75	1816,604		16188.6	15175.8	03-18-75	10,300	3644	5013	C		4998	3052	37,507	20.6
1-76	1636,815	3453,419	17825.4										31,744	19.4
4-76	915,513		18740.9	18648.4	03-23-76	10,100							16,787	18.3

0.700

z  
z  
zz  
z  
oo  
oo  
o

12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0

22

PLOT  
SYMBOLS:

WHSIP= 0

BHP/Z= Z

WHSIP &amp; BHP/Z COMMON= C

TEMP. GRAD: 0.700

PRESSURE

10000

9000

8000

7000

6000

5000

4000

3000

2000

1000

0

BILLIONS →

04,0

08,0

12,0

16,0

20,0

24,0

28,0

32,0

36,0

40,0

44,0

D WRIGHT'S

5618 DANIELS

DALLAS, TEXAS 75206

OB0246858 ATLANTIC RICHFIELD CO RUBB ESTATE

STATE OR PROVINCE FIELD NUMBER FIELD NAME RESERVOIR

TEXAS 21752666 CRITTENDON (PENN.)

DIST. NO. COUNTY OR PARISH DATE COMP DATE 1ST PROD GAS GRAVITY DATE TEST DATE NET. POTENTIAL BHT-WHCP LATEST N FAC. UNIT. BHP/Z M TOTAL DEPTH

8 WINKLER 072169 07-69 .62 073069 160000 7700 .925 6916 14650

PERIOD ENDING	MCF LAST SIX MONTHS	MCF YEARLY PRODUCTION	MMCF CUMULATIVE PRODUCTION	MMCF CUMULATIVE AT TEST	TEST DATE	POTENTIAL	WHSIP	BHP	M C	BHP/Z	MCF / INCH
7-69	677,666	677,666	677.7	424.0	12-04-69	10,200					
1-70	1724,730		2402.4	824.7	01-15-70	11,235	7205	9029	C	6763	1
1-71	1333,161	3057,891	3735.6	2638.4	07-31-70	11,400	6310	8077	C	6451	1
7-71	1268,990		5004.5	4232.6	03-02-71	11,375	5665	7360	C	6190	2
1-72	901,194	2170,184	5905.7	5246.4	09-02-71	10,600	5390	7050	C	6062	2
7-72	1182,157		7087.9	6369.1	03-02-72	9,200	5024	6634	C	5881	2
1-73	859,424	2041,581	7947.3	7252.0	09-12-72	9,300	4912	6505	C	5818	2
7-73	973,281		8920.6	8592.1	03-06-73	10,700	4379	5855	C	5487	2
1-74	921,795	1895,076	9842.4	9014.0	08-14-73	10,600	4369	5843	C	5481	2
7-74	874,395		10716.8	10323.6	03-05-74	9,400	4025	5434	C	5243	2
1-75	791,818	1666,213	11508.6	10822.7	08-30-74	8,700	3924	5343	C	5208	2
7-75	1315,008		12823.6	12083.8	03-17-75	9,300	3687	5056	C	5026	3
1-76	1213,662	2528,670	14037.3								
4-76	644,652		14681.9	14618.8	03-23-76	7,300					

080246858														ATLANTIC RICHFIELD CO														TUBB ESTATE														2	
STATE OR PROVINCE				FIELD NUMBER				FIELD NAME														RESERVOIR				STATUS		GAS GATHERER															
TEXAS				21752666				CRITTENDON (PENN.)																		ACT		NATGP SCURL															
DST. NO.		COUNTY OR PARISH				DATE COMP		DATE 1ST PRD		GAS GRVITY		DST. TEST DATE		DST. POTENTIAL		DST. WHP		LATEST N.F.C.		INIT. SHIP/E		TOTAL DEPTH		PERFORATIONS		WELLHEAD FLOWING PRESSURE AT END OF TEST																	
8		WINKLER				072169		07-69		.62		073069		160000		7700		.925		6916C		14650		14520-14548		53.6																	
PERIOD (MO.)		MCF LAST SIX MONTHS				MCF YEARLY PRODUCTION				MMCF CUMULATIVE PRODUCTION				MMCF CUMULATIVE AT TEST				TEST DATE		POTENTIAL		WHP		BHP		M C		BHP/E		MCF/E DROP INIT WHP		SIX MONTH COND. PROD.		SIX MONTH GAS MCF									
7-69																																											
1-70		677,666				677,666				677.7				424.0				12-04-69		10,200										15,004		22.1		7675									
7-70		1724,730								2402.4				824.7				01-15-70		11,235		7205		9029		C		6763		1666		38,353		22.2		8960							
1-71		1338,161				3057,891				3735.6				2638.4				07-31-70		11,400		6310		8077		C		6451		1898		31,378		23.5		6080							
7-71		1268,990								5004.5				4232.6				03-02-71		11,375		5665		7360		C		6190		2080		28,446		22.4		5540							
1-72		901,194				2170,184				5905.7				5246.4				09-02-71		10,600		5390		7050		C		6062		2271		20,083		22.3		5275							
7-72		1182,157								7087.9				6369.1				03-02-72		9,200		5024		6634		C		5881		2380		25,207		21.3		4925							
1-73		859,424				2041,581				7947.3				7252.0				09-12-72		9,300		4912		6505		C		5818		2601		17,403		20.2		4577							
7-73		973,281								8920.6				8592.1				03-06-73		10,700		4379		5855		C		5487		2587		20,000		20.5		4251							
1-74		921,795				1895,076				9842.4				9014.0				08-14-73		10,600		4369		5843		C		5481		2706		18,832		20.4		4241							
7-74		874,395								10716.8				10323.6				03-05-74		9,400		4025		5434		C		5245		2809		17,655		20.2		3981							
1-75		791,818				1666,213				11508.6				10822.7				08-30-74		8,700		3924		5343		C		5208		2866		16,053		20.3		3851							
7-75		1315,008								12823.6				12083.8				03-17-75		9,300		3687		5056		C		5026		3011		24,613		18.7		3456							
1-76		1213,662				2528,670				14037.3																																	
4-76		644,652								14681.9				14618.8				03-23-76		7,300												12,113		18.6		2957							



PLOT  
SYMBOLS:

WHSIP = D

BHP/Z = Z

WHSIP & BHP/Z COMMON = C

TEMP GRAD: 0.700

PRESSURE

10000

9000

8000

7000

6000

5000

4000

3000

2000

1000

0

BILLIONS →

02.0

04.0

06.0

08.0

10.0

12.0

14.0

16.0

18.0

20.0

22.0

IDENTIFYING NUMBER		LOCATION		OPERATOR		WELL NAME					
080249899		ATLANTIC RICHFIELD CO		TUBB 1 UNIT							
STATE OR PROVINCE		FIELD NUMBER		FIELD NAME		RESERVOIR					
TXAS		21752666		CRITTENDON (PENN.)							
DATE	COUNTY OR PARISH	DATE COMP.	DATE 1ST PROD.	GAS GRANTS	INIT. TEST DATE	INIT. POTENTIAL	INIT. WHSIP	LATEST N FAC	INIT. BHP/Z	%	TOTAL DEPTH
8	WINKLER	010571	01-71	.63	010571	2650	9784		7420	C	21966
PERIOD ENDING	MMCF LAST SIX MONTHS	MMCF YEARLY PRODUCTION	MMCF CUMULATIVE PRODUCTION	MMCF CUMULATIVE AT TEST	TEST DATE	POTENTIAL	WHSIP	BHP	M C	BHP/Z	PCF # D INCH WH
7-70											
1-71											
7-71	550,699		550.7	73.3	03-24-71	8,647	8165	10111	C	7056	4
1-72	860,721	1411,420	1411.4	815.7	09-08-71	10,500	5522	7215	C	6130	19
7-72	955,423		2366.8	1789.1	03-07-72	8,200	5041	6698	C	5912	37
1-73	902,035	1857,458	3268.9	2550.3	09-09-72	8,000	5057	6686	C	5901	54
7-73	758,130		4027.0	3704.6	03-02-73	8,100	4391	5913	C	5526	68
1-74	748,819	1506,949	4775.8	4144.5	08-22-73	8,300	4550	6100	C	5622	79
7-74	759,017		5534.8	5213.0	03-12-74	7,800	4042	5498	C	5297	90
1-75	689,291	1448,308	6224.1	5676.9	09-09-74	6,000	4090	5556	C	5327	99
7-75	1155,505		7379.6	6741.2	03-20-75	6,600	3657	5063	C	5043	110
1-76	964,222	2119,727	8343.9								
4-76	495,108		8839.0	8789.0	03-23-76	5,500					

IDENTIFYING NUMBER		LOCATION		OPERATOR		WELL NAME		WELL NO.					
080249899		ATLANTIC RICHFIELD CO		TUBB 1 UNIT				1					
STATE OR PROVINCE		FIELD NUMBER		FIELD NAME		RESERVOIR		STATUS					
TEXAS		21752666		CRITTENDON (PENN.)				ACT NATGP SCURL					
DATE INJ	COUNTRY OR PARISH	DATE COMP	DATE 1ST PROD	CAS GRANT	INIT TEST DATE	INIT. POTENTIAL	INIT. WHSIP	LATEST N FAC	INIT. BHP/Z	M C	TOTAL DEPTH	PERFORATIONS	WELLFLOW PRESSURE AT END OF TEST
U	WINKLER	010571	01-71	.63	010571	2650	9784		7420	C	21966	14658-14682	53.7
PERIOD (END-NG)	MCE LAST SIX MONTHS	MCE YEARLY PRODUCTION	MACE CUMULATIVE PRODUCTION	MACE CUMULATIVE AT LIST	TEST DATE	POTENTIAL	WHSIP	BHP	M C	BHP/Z	MCE R. DROP INIT WHSIP	ST. MCE R. COIL. PROD.	ST. MCE R. Sels. MACE
7-70													
1-71													
7-71	550,699		550.7	73.3	03-24-71	8,647	8165	10111	C	7056	745	13,186	23.9
1-72	860,721	1411,420	1411.4	815.7	09-08-71	10,500	5522	7215	C	6130	191	19,629	22.8
7-72	955,423		2366.8	1709.1	03-07-72	8,200	5041	6698	C	5912	377	22,950	24.0
1-73	902,035	1857,458	3268.9	2550.3	09-09-72	8,000	5057	6686	C	5901	540	19,541	21.7
7-73	758,130		4027.0	3704.6	03-02-73	8,100	4391	5913	C	5526	687	15,787	20.8
1-74	748,819	1506,949	4775.8	4144.5	08-22-73	8,300	4550	6100	C	5622	792	18,607	24.8
7-74	759,017		5534.8	5213.0	03-12-74	7,800	4042	5498	C	5297	908	17,137	22.6
1-75	689,291	1448,308	6224.1	5676.9	09-09-74	6,000	4090	5556	C	5327	997	15,585	22.6
7-75	1155,505		7379.6	6741.2	03-20-75	6,600	3657	5063	C	5043	1100	23,330	20.2
1-76	264,222	2119,727	8343.9									18,994	19.7
4-76	495,108		8839.0	8789.0	02-23-76	5,500						9,660	19.5

0.700

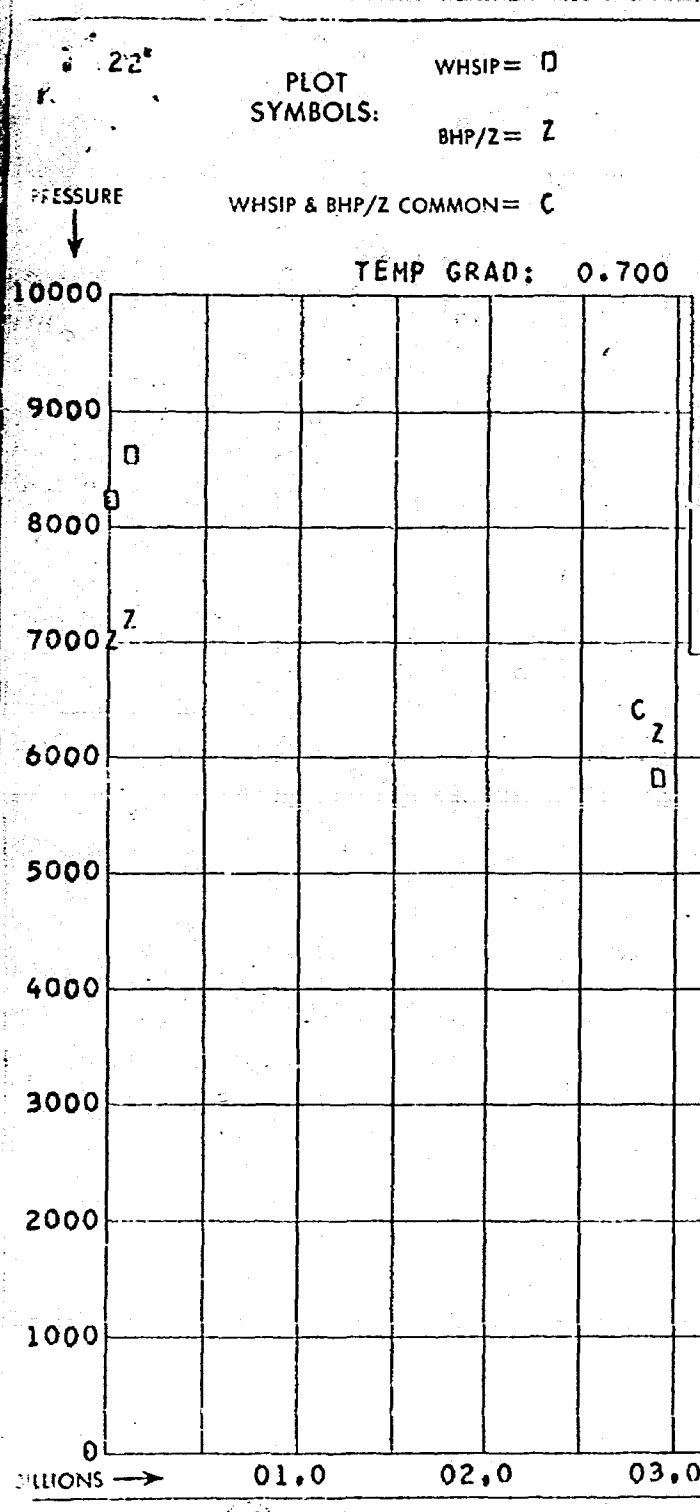
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06.0 08.0 10.0 12.0 14.0 16.0 18.0 20.0 22.0 24.0





IDENTIFYING NUMBER		LOCATION		OPERATOR		WELL NAME					
080245191		ATLANTIC RICHFIELD CO		TUBB 23 UNIT							
STATE OR PROVINCE		FIELD NUMBER		FIELD NAME		RESERVOIR					
TEXAS		21752666		CRITTENDON (PENN.)							
DIST. NO.	COUNTY OR PARISH	DATE COMP.	DATE 1ST PROD.	GAS GRAB	INIT. TEST DATE	INIT. POTENTIAL	INIT. WHSIP	LATEST N. FAC.	INIT. BHP/Z	TOTAL DEPTH	
B	WINKLER	121068	12-68	.65	121368	86000	8249	.910	.7082	14740	
PERIOD ENDING	MCF LAST SIX MONTHS	MCF YEARLY PRODUCTION	MMCF CUMULATIVE PRODUCTION	MMCF CUMULATIVE AT TEST	TEST DATE	POTENTIAL	WHSIP	BHP	M C	BHP/Z	MCF/Z
7-69	967,523		979.0	55.7	02-10-69	10,818	8515	10455	C	7161	P 15
1-70	948,323	1915,846	1927.3	1679.2	12-04-69	10,200					
7-70	941,974		2069.3	2819.3	06-15-70	3,200	6425	8109	C	6499	154
1-71	317,478	1259,452	3186.7	2873.5	07-05-70	1,400	3115	4323	C	4508	113
7-71	188,831		3375.6	3256.1	03-11-71	3,800					
1-72	695,111	883,942	4070.7	3641.8	09-15-71	5,200					
7-72	810,285		4881.0	4416.1	03-13-72	5,200					
1-73	743,805	1554,090	5624.8	5157.7	09-13-72	5,700					
7-73	727,724		6352.5	5986.7	03-14-73	5,400					
1-74	766,986	1404,710	7119.5	6604.8	09-12-73	5,100					
7-74	807,317		7926.8	7472.3	03-17-74	6,000					
1-75	606,164	1413,481	8533.0	8150.6	09-11-74	5,600					
7-75	985,417		9518.4	8924.3	03-20-75	6,600					
1-76	1176,361	2161,778	10694.7								
4-76	636,803		11331.5	11268.2	03-23-76	6,600					

WELL MAKING WATER  
CANNOT SHUT IN FOR  
BHP.

IDENTIFYING NUMBER		LOCATION		OPERATOR		WELL NAME		WELL							
080245191		ATLANTIC RICHFIELD CO		TUBB 23 UNIT				1							
STATE OR PROVINCE		FIELD NUMBER		FIELD NAME		RESERVOIR		STATUS		GAS CATCHER		LOG D.			
TEXAS		21752666		CRITTENDON (PENN.)				ACT		NATGP		SCURL			
DIST. NO.	COUNTY OR PARISH		DATE COMP.	DATE 1ST PROD.	GAS GRAB	INIT. TEST DATE	INIT. POTENTIAL	INIT. WHP	LATEST N FAC.	INIT. BHP/Z	M C	TOTAL DEPTH	PERFORATIONS		WELLHEAD PRESSURE AT END OF TEST
B	WINKLER		121068	12-68	.65	121368	86000	8249	.810	7082	C	14740	14635-14648	54.0	
PERIOD ENDING	MCF LAST SIX MONTHS	MCF YEARLY PRODUCTION	MMCF CUMULATIVE PRODUCTION	MMCF CUMULATIVE AT TEST	TEST DATE	POTENTIAL	WHP	BHP	M C	BHP/Z	MCF A. DEEP INIT. WHP	5 MONTH COND. PROD.	24 MONTHS PROD. MCF	WELLHEAD PRESSURE AT END OF TEST	
7-69	967,523		979.0	55.7	02-10-69	10,818	8515	10455	C	7161	P INC	20,217	20.9	7900	
1-70	948,323	1915,846	1,927.3	1679.2	12-04-69	10,200						20,824	23.0	7450	
7-70	941,974		2,869.3	2819.5	06-15-70	3	6425	8189	C	6499	1546	19,853	21.1	5350	
1-71	317,478	1259,452	3186.7	2873.5	07-05-70	3,200	5840	7539	C	6262	1193	56,269	16.6	5300	
7-71	188,831		3375.6	3256.1	03-11-71	1,400	3115	4323	C	4508	634	31,247	17.2	2400	
1-72	695,111	883,942	4070.7	3641.8	09-15-71	3,800						14,362	20.7	3250	
7-72	810,285		4881.0	4416.1	03-13-72	5,200						19,671	24.2	3450	
1-73	743,805	1554,090	5624.8	5157.7	09-13-72	5,200						20,189	27.1	3268	
7-73	727,724		6352.5	5986.7	03-14-73	5,700						20,199	27.8	2690	
1-74	766,986	1494,710	7119.5	6604.8	09-12-73	5,400						21,372	27.9	2698	
7-74	807,317		7926.8	7472.3	03-17-74	5,100						22,091	27.4	2541	
1-75	606,164	1413,481	8533.0	8150.6	09-11-74	6,000						17,388	28.7	2274	
7-75	985,417		9518.4	8924.3	03-20-75	5,600						24,764	25.1	2249	
1-76	1176,361	2161,778	10694.7									26,812	22.8		
4-76	636,803		11331.5	11268.2	03-23-76	6,500						13,171	20.7	2112	

WELL MAKING WATER  
CANNOT SHUT IN FOR  
BHP.

03.0

04.0

05.0

06.0

07.0

08.0

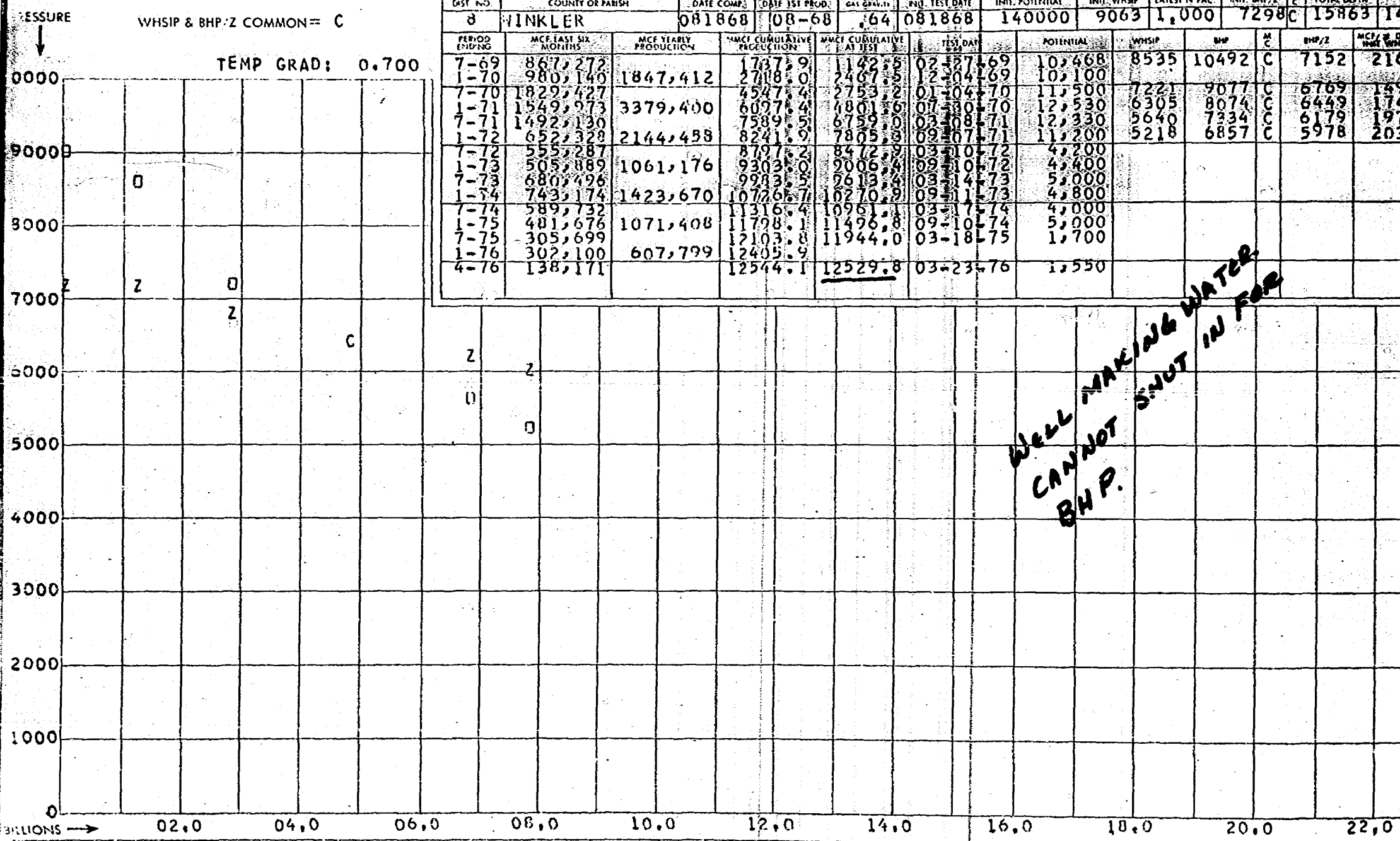
09.0

10.0

11.0

12.0

22  
PLOT  
SYMBOLS:  
WHSIP = D  
BHP/Z = Z  
WHSIP & BHP/Z COMMON = C  
TEMP GRAD: 0.700



IDENTIFYING NUMBER		LOCATION		OPERATOR		WELL NAME					
080244651		ATLANTIC RICHFIELD CO		TURB 22 UNIT							
STATE OR PROVINCE		FIELD NUMBER		FIELD NAME		RESERVOIR					
TEXAS		21752666		CRITTENDON (PENN.)		A					
DATE NO.	COUNTY OR PARISH	DATE COMP.	DATE TEST PROD.	GAS GRAVITY	INIT. TEST DATE	INIT. POTENTIAL	INIT. WHSIP	LATEST N. FAC.	INIT. BHP/Z	M	TOTAL DEPTH
8	WINKLER	081868	08-68	.64	081868	140000	9063	1,000	7298	C	15863
PERIOD ENDING	MCF LAST SIX MONTHS	MCF YEARLY PRODUCTION	MCF CUMULATIVE PRODUCTION	MCF CUMULATIVE AT TEST	TEST DATE	POTENTIAL	WHSIP	BHP	M	BHP/Z	MCF Z D
7-69	867,272		1737.9	1142.5	02-27-69	10,468	8535	10492	C	7152	210
1-70	980,140	1847,412	2718.0	2467.5	12-04-69	10,100					
7-70	1829,427		4547.4	2753.2	01-04-70	11,500	7221	9077	C	6769	14
1-71	1549,973	3379,400	6027.4	4801.6	07-30-70	12,530	6305	8074	C	6449	17
7-71	1492,130		7589.5	6759.0	03-08-71	12,330	5640	7334	C	6179	19
1-72	652,328	2144,458	8241.9	7805.3	09-07-71	11,200	5218	6857	C	5978	20
7-72	555,287		8797.2	8472.9	03-10-72	4,200					
1-73	505,889	1061,176	9303.0	9006.4	09-10-72	4,400					
7-73	680,496		9983.5	9613.4	03-14-73	5,000					
1-74	743,174	1423,670	10726.7	10270.9	09-11-73	4,800					
7-74	589,732		11316.4	10961.1	03-17-74	4,000					
1-75	401,676	1071,408	11798.1	11426.8	09-10-74	5,000					
7-75	305,699		12103.8	11944.0	03-18-75	1,700					
1-76	302,100	607,799	12405.9								
4-76	138,171		12544.1	12529.8	03-23-76	1,550					

WELL MAKING WATER  
CANNOT SHUT IN FOR  
BHP.

IDENTIFYING NUMBER		LOCATION		OPERATOR		WELL NAME		WELL							
080244651		ATLANTIC RICHFIELD CO		TURB 22 UNIT				1							
STATE OR PROVINCE		FIELD NUMBER		FIELD NAME		RESERVOIR		STATUS							
TEXAS		21752666		CRITTENDON (PENN.)		A K		ACT NAT GP SCURL							
EST. NO.	COUNTY OR PARISH	DATE COMP.	DATE 1ST PROD.	GAS GRAM-T	INIT. TEST DATE	INIT. POTENTIAL	INIT. WHSP	LATEST N. FAC.	INIT. BHP	2	TOTAL DEPTH	PERFORATIONS	INITIAL	WELLHEAD FLOWING PRESSURE AT END OF TEST	
8	WINKLER	081868	08-68	.64	081868	140000	9063	1,000	7298	C	15863	14539-14567	53.6		
PERIOD ENDING	MCF LAST SIX MONTHS	MCF YEARLY PRODUCTION	MMCF CUMULATIVE PRODUCTION	MMCF CUMULATIVE AT TEST	TEST DATE	POTENTIAL	WHSP	BHP	M	C	EHP/2	MCF/E DROP INIT WHSP	SIX MONTH COND. FLOW	24 MONTH EST. FLOW	WELLHEAD FLOWING PRESSURE AT END OF TEST
7-69	867,272		1737.9	1142.5	02-27-69	10,468	8535	10492	C		7152	2164	18,850	21.7	8000
1-70	980,140	1847,412	2718.0	2467.5	12-04-69	10,100							20,223	20.6	7400
7-70	1829,427		4577.4	2753.2	01-04-70	11,500	7221	9077	C		6769	1495	39,609	21.7	6350
1-71	1549,973	3379,400	6097.4	4801.6	07-30-70	12,530	6305	8074	C		6448	1741	34,806	22.5	5990
7-71	1492,130		7589.5	6759.0	03-08-71	12,330	5640	7334	C		6179	1975	33,108	22.2	5370
1-72	652,328	2144,458	8241.9	7805.3	09-07-71	11,200	5218	6857	C		5978	2030	14,004	21.5	4527
7-72	555,287		8797.2	8472.9	03-10-72	4,200							11,770	21.2	3600
1-73	505,889	1061,176	9303.0	9006.4	09-10-72	4,400							11,175	22.1	3555
7-73	680,496		9903.5	2613.4	03-14-73	5,000							15,726	23.1	2200
1-74	743,174	1423,670	10726.7	10270.9	09-11-73	4,800							18,168	24.4	2750
7-74	589,732		11316.4	10961.1	03-17-74	4,000							13,975	23.7	2100
1-75	481,676	1071,408	11798.1	11496.8	09-10-74	5,000							12,044	25.0	2065
7-75	305,699		12103.8	11944.0	03-18-75	1,700							7,180	23.5	1403
1-76	302,100	607,799	12405.9										6,544	21.7	
4-76	138,171		12544.1	12529.0	03-23-76	1,550							2,780	20.1	976

WELL MAKING WATER  
CANNOT SHUT IN FOR  
BHP.

06.0 08.0 10.0 12.0 14.0 16.0 18.0 20.0 22.0 24.0

PLOT  
SYMBOLS:

WHSIP = D

BHP/Z = Z

WHSIP & BHP/Z COMMON = C

TEMP GRAD: 0.700

PRESSURE

10000

9000

8000

7000

6000

5000

4000

3000

2000

1000

0

BILLIONS →

04.0

08.0

12.0

16.0

20.0

24.0

28.0

32.0

36.0

40.0

44.0

WELL IDENTIFICATION NUMBER		LOCATION		OPERATOR		WELL NAME					
080243472		ATLANTIC RICHFIELD CO		TUBB ESTATE							
STATE OR PROVINCE		FIELD NUMBER	FIELD NAME				RESERVOIR				
TEXAS		21752333	CRITTENDON (ELLEN, 21450)								
DIST. NO.	COUNTY OR PARISH		DATE COMP.	DATE 1ST PROD.	GAS GRAVITY	INIT. TEST DATE	INIT. POTENTIAL	INIT. WHSIP	LATEST N. FAC.	INIT. BHP/Z	TOTAL DEPTH
8	WINKLER		020868	02-68	.57	021068	27000	9003	.675	77250	22180
PERIOD ENDING	MCE LAST SIX MONTHS	MCE YEARLY PRODUCTION	MACE CUMULATIVE PRODUCTION	MACE CUMULATIVE AT TEST	TEST DATE	POTENTIAL	WHSIP	BHP	BHP/Z	MCE PERIOD	
7-69	2513,921		3956.0	1649.6	01-12-69	17,400	6215	8561	0	6715	
1-70	2824,825	5340,756	6780.8	5223.0	02-26-69	16,800	4040	6051	0	5501	
7-70	2390,520		9179.4	7002.8	01-16-70	14,800	3299	4251	0	4789	
1-71	2116,080	4515,570	11296.4	6589.9	07-31-70	13,366	2977	4511	0	4466	
7-71	1773,018		13069.4	11905.4	03-01-71	10,400	2615	3899	0	4072	
1-72	1571,597	3344,615	14641.0	13717.5	09-30-71	10,200	2290	3533	0	3670	
7-72	1366,134		16007.2	15203.3	03-14-72	8,500	2140	3332	0	3511	
1-73	1177,735	2543,869	17184.9	16482.2	09-30-72	7,900	2079	3238	0	3423	
7-73	757,850		17942.7	17409.5	02-06-73	6,100	1755	2701	0	2860	
1-74	743,379	1501,229	18686.1	18092.8	08-31-73	6,270	1752	2724	0	2916	
7-74	804,897		19491.0	19012.5	03-01-74	5,700	1685	2586	0	2775	
1-75	604,284	1409,181	20095.3	19591.9	09-08-74	6,300	2125	3274	0	3443	
7-75	672,696		20768.0	20419.8	03-21-75	4,000	1369	2094	0	2237	
1-76	517,754	1190,450	21285.8								
4-76	227,274		21513.0	21491.7	03-23-76	2,100					

ELLENBURGER PRODUCER

WELL IDENTIFYING NUMBER		LOCATION		OPERATOR		WELL NAME		WELL NO.						
080243472		ATLANTIC RICHFIELD CO		TURB ESTATE		1.								
STATE OR PROVINCE		FIELD NUMBER		FIELD NAME		RESERVOIR		STATUS						
TEXAS		21752333		CRITTENDON (ELLEN, 21450)		ACT NATGP								
DIST. NO.	COUNTY OR PARISH	DATE COMP.	DATE 1ST PROD.	GAS GRAVITY	INI. TEST DATE	INIT. POTENTIAL	INIT. WHP	LATEST N.FAC.	INIT. BHP/2	TOTAL DEPTH	PERFORATIONS	WELL HEAD FLOW PRESSURE AT END OF TEST		
B	WINKLER	020868	02-68	.57	021068	27000	9003	.675	7725	22180	21466-21673			
PERIOD ENDING	MCF LAST SIX MONTHS	MCF YEARLY PRODUCTION	MMCF CUMULATIVE PRODUCTION	MMCF CUMULATIVE AT BEST RES.	TEST DATE	POTENTIAL	WHP	BHP	M/C	BHP/2	MCF @ DROP INIT WHP	SIX MONTHS COND. PROD.	SIX MONTHS REIS. MACE	WELL HEAD FLOW PRESSURE AT END OF TEST
7-69	2515,931		3956.0	1649.6	01-12-69	17,419	6215	8561	C	6715	592			350
1-70	2824,825	5340,756	6780.8	5223.0	09-26-69	16,800	4140	6051	C	5501	1088			211
7-70	2390,596		9179.4	7002.8	01-16-70	14,800	3299	4951	C	4784	1228			170
1-71	2116,080	4515,570	11296.4	9509.9	07-31-70	13,306	2977	4511	C	4466	1591			199
7-71	1773,018		13069.4	11905.4	03-01-71	10,400	2615	3999	C	4072	1864			146
1-72	1571,597	3344,615	14641.0	13717.5	09-10-71	10,200	2220	3523	C	3670	2043			149
7-72	1366,134		16007.2	15203.3	03-14-72	8,500	2140	3332	C	3511	2215			132
1-73	1177,735	2543,869	17184.9	16482.2	02-11-72	7,900	2079	3238	C	3423	2380			128
7-73	757,850		17942.7	17409.5	02-06-73	6,100	1755	2701	C	2880	2402			130
1-74	743,379	1501,229	18686.1	18092.8	08-31-73	6,270	1752	2724	C	2916	2495			126
7-74	804,897		19491.0	19012.5	03-01-74	5,700	1665	2586	C	2775	2491			92
1-75	604,284	1409,181	20095.3	19591.9	09-08-74	6,300	2125	3274	C	3443	2848			155
7-75	672,696		20768.0	20419.8	03-21-75	4,000	1369	2094	C	2237	2675			73
1-76	517,754	1190,450	21285.8											
4-76	227,274		21513.0	21491.7	03-23-76	2,100								37

ELLENBURGER PRODUCER

12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0



RAILROAD COMMISSION OF TEXAS  
OIL AND GAS DIVISION

OIL AND GAS DOCKET

NO. 8 - 66,522

Austin, Texas  
September 14, 1976

IN RE: CONSERVATION AND PREVENTION  
OF WASTE OF CRUDE PETROLEUM  
AND NATURAL GAS IN THE  
COMANCHE (MORROW) FIELD,  
WINKLER COUNTY, TEXAS

NOTICE OF HEARING  
ON THE APPLICATION OF GIFFORD, MITCHELL & WISENBAKER  
FOR THE ADOPTION OF TEMPORARY FIELD RULES  
FOR THE COMANCHE (MORROW) FIELD  
WINKLER COUNTY, TEXAS

NOTICE IS HEREBY GIVEN To the public and all interested persons that under the authority of Title 102, Oil and Gas, and Chapters 21, 22 and 24 of the Texas Water Code, Revised Civil Statutes of Texas, the Railroad Commission of Texas will hold a hearing on OCTOBER 8, 1976, at 9 a.m. in its Hearing Room in the Ernest O. Thompson State Building, 10th and Colorado Streets, Austin, Texas, for the following purpose:

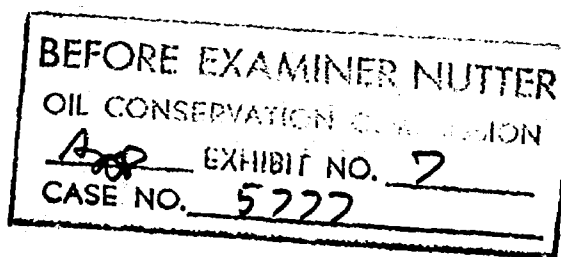
To consider the application of Gifford, Mitchell & Wisenbaker for the adoption of temporary field rules for the Comanche (Morrow) Field, Winkler County, Texas. The applicant will request 1320' - 3735' spacing, 640 acre proration units and 100% acreage allocation.

PURSUANT TO SUCH HEARING, the Commission will enter such rules, regulations, and orders as in its judgment the evidence presented may justify.

RAILROAD COMMISSION OF TEXAS

*E. Markopoulos*  
Secretary AS

/bp





# WOLF PETRO LAB, INC.

DIAL EMERSON 6-9701  
DIAL EMERSON 6-7171

2411 WEST 42ND STREET

P. O. BOX 643  
ODESSA, TEXAS

79760

## HYDROCARBON ANALYSIS

## LABORATORY REPORT

Gifford, Mitchell

Charge & Wisenbaker

Test No. WPL-76-691

Date of Run 7-10-76

Date Received 7-5-76

A Sample of Gas from Separator - Comanche No. 1

Secured from Morrow Formation

At Winkler County, Texas

Secured by

Purpose Time Date 7-3-76

Sampling Conditions: Test Interval 15553 feet

### CHROMATOGRAPH ANALYSIS

	Gas Vol. or Mol. %	Liquid Vol. %	GPM
Hydrogen Sulfide			
Carbon Dioxide	.38		
Air			
Nitrogen	.20		
Oxygen			
Methane	93.14		
Ethane	3.88		
Propane	1.26		.35
Iso-Butane	.21		.07
N-Butane	.28		.09
Iso-Pentane	.12		.04
N-Pentane	.07		.03
Iso-Hexane			
N-Hexane			
Pentanes (2)			
Hexanes (2)	.16		.07
Heptane (2)			
TOTAL	100.00		.65

(1) and lighter  
(2) and heavier

### ANALYSIS INFORMATION

Volume of Sample cc. @ ° F  
Sp. Gr. Residue Vol. of Residue cc.  
Molecular Wgt. of Residue  
Gal/lb. Mol.

### VAPOR PRESSURE

Calculated lbs. @ 100° F  
lbs. @ 100° F

### GASOLINE CONTENT

26/70 Gasoline .21 G. P. M.  
100% Propane .35 G. P. M.  
Excess Butanes .09 G. P. M.  
TOTAL .65 G. P. M.

### SULFUR DETERMINATION

Hydrogen Sulfide	H <sub>2</sub> S	.0115	grs/100 SCF
Mercaptans	RSH	.1985	grs/100 SCF
Sulfides	RSR	.0336	grs/100 SCF
Residual Sulfides	RSSF	.0050	grs/100 SCF
Total Sulfides		.2786	grs/100 SCF

### OTHER DATA

	Calc. Wet Basis		Dry Basis
BTU Content (Actual)	1058	(Calc.)	1077
Sp. Gravity (Actual)		(Calc.)	.6044
A. P. I. Gr. (Actual)		(Calc.)	

Run by: J. Wolf Checked by: J. Wolf Approved:

Additional Data and Remarks

### COPIES

5 - E. R. West Engineering  
P. O. Box 7040  
Midland, Texas 79701

1 - File

BEFORE EXAMINER NUTTER

OIL CONSERVATION COMMISSION

EXHIBIT NO. 5

CASE NO. 5777



RAILROAD COMMISSION OF TEXAS  
OIL AND GAS DIVISIONAPPLICATION FOR DISCOVERY ALLOWABLE  
AND NEW FIELD DESIGNATION

1. RRC District <b>8</b>	2. County <b>Winkler</b>	3. Survey <b>Blk. C-23 PSI Survey</b>	4. Sec. No. <b>13</b>
5. Operator <b>Gifford, Mitchell &amp; Wisenbaker</b>		6. Lease <b>Comanche Unit</b>	7. Well No. <b>1</b>
8. Address <b>Suite 1280 Midland National Bank Tower, Midland, TX 79701</b>			
9. Suggested Field Names (In order of preference)		10. Name of Producing Zone <b>Morrow</b>	
First: <b>Comanche</b>		11. Type of Production (Indicate one only) OIL:                      GAS: <b>X</b>	
Second:		12. Top of Pay <b>15,550'</b>	
Third:		13. Perf. From: <b>15,560'</b> To: <b>15,570'</b>	
14. Date of Water Based letter: <b>11-14-75</b>		15. Date Commission Form W-2 or G-1 (Potential Test) filed: <b>8-9-76</b>	
		(W-2) <b>BOPD</b> ° API Gravity <b>GOR</b> (G-1) <b>36,100</b> AOP <b>0.60</b> Gas Gravity <b>NA</b> Gas-Liq. Hydro Ratio	
16. Nearest Production (oil and/or gas, past or present) to this Well:			
a. Field: <b>Leck West</b> Oil or Gas (State Which): <b>Oil</b>			
b. Reservoir Name & Depth Interval: <b>Bone Springs (9,742' - 64')</b>			
c. Distance & Direction from this Well: <b>½ mile southwest</b>			
17. Nearest Comparable Production (oil and/or gas, past or present) to this Well:			
a. Field: <b>None</b> Oil or Gas (State Which): <b>NA</b>			
b. Reservoir Name & Depth Interval: <b>NA</b>			
c. Distance & Direction from this Well: <b>NA</b>			
ALL OFFSET OPERATORS MUST BE NOTIFIED BY WRITING BY THE APPLICANT.			
If this is a newly discovered reservoir on a known producing multi-reservoir structure, all operators in field or fields involved must be notified by copy of this application.			
18. Date the operators were notified of this application: <b>September 9, 1976</b>			
19. Operators Notified (List Below):			
a. Operator Name		b. Address	
<b>Cities Service Company</b>		<b>P. O. Box 1919 Midland, TX 79701</b>	
<b>Enserch Exploration, Inc.</b>		<b>P. O. Box 4815 Midland, TX 79701</b>	
<b>Exxon Company, U.S.A.</b>		<b>P. O. Box 1600 Midland, TX 79701</b>	
<b>El Paso Natural</b>		<b>600 Bldg. of the Southwest Midland, TX 79701</b>	
<b>BTA Oil Producers</b>		<b>104 South Pecos Midland, TX 79701</b>	
<b>Amoco Production Co.</b>		<b>P. O. Box 1725 Midland, TX 79701</b>	
<b>Skelly Oil Co.</b>		<b>P. O. Box 1351 Midland, TX 79701</b>	

## CERTIFICATE:

I declare under penalties prescribed in Article 6936c, R. C. S., that I am authorized to make this report, that this report was prepared by me or under my supervision and direction, and that data and facts stated therein are true, correct, and complete, to the best of my knowledge.

*Kale Webster*  
Signature

Kale Webster  
Name of Person (type or print)

**8-9-76**  
Date

**Petro - Engr. - Agent**  
Title

**915 682-4321**  
Telephone No. Area Code Number

Company Name Gifford, Mitchell & Wisenbaker

Lease Name Horse Back

Well No. 1

Proposed Depth 20,000'

State New Mexico

County Lea

Formation To Be Tested Fusselman

Well Location Section 33, T26S, R 36E

Spud Date September 15, 1976

Estimated Days to Drill 150

To Complete 15

☐ WILDCAT

☒ DEVELOPMENT

☐ WORKOVER

☐ OTHER

☐ Drill

☐ Complete

☒ Drill

☒ Complete

☐ Plug Back

☐ Deepen

☐ Change Zone

☐

☐

☐

INTANGIBLE COST

DESCRIPTION	DRILL	COMPLETE	TOTAL
1 Access & Damages	10,000		10,000
2 Location & Roads	15,000	2,000	17,000
3 Rig Move	50,000		50,000
4 Day Work Cost <u>150</u> Days @ \$ <u>3600</u> /day	540,000		540,000
5 Footage Cost _____ Feet @ \$ _____ /foot			
6 Bits	40,000		40,000
7 Reamers	12,000		12,000
8 Shock Sub	9,000		9,000
9 Fuel <u>165</u> Days @ \$ <u>500</u> /day	75,000	7,500	82,500
10 Fresh Water	10,000		10,000
11 Brine Water	15,000	2,000	17,000
12 Mud Materials	160,000		160,000
13 Corrosion Inhibitor	10,000	2,500	12,500
14 Cement & Pump Service	50,000	12,000	62,000
15 Miscellaneous Pump Service			
16 Pipe Inspection	12,000	10,000	22,000
17 Coring			
18 Drill Stem Testing	3,000		3,000
19 Electrical Logging	50,000	4,000	54,000
20 Casing Crews & Tools	8,000	2,000	10,000
21 Mud Logging	20,000		20,000
22 Perforating		4,000	4,000
23 Stimulation (Acid & Frac)		15,000	15,000
24 Transportation	10,000	2,000	12,000
25 Equipment Rental (Pvt. Degasser, Misc Tools, etc.)	50,000	5,000	55,000
26 Supervision & Overhead	36,000	4,000	40,000
27 Completion Rig		54,000	54,000
28 Other Drilling Expense			
29 Contingencies (10% of Intangibles)	118,500	12,600	131,100
30			
31			
32 TOTAL INTANGIBLES	1,303,500	138,600	1,442,100

TANGIBLE COST

33	60	Of 30	" Conductor Casing	2,000		2,000
34	1,200	Of 20	" Surface Casing	47,000		47,000
35	4,500	Of 13-3/8	" Intermediate Casing	83,000		83,000
36	14,000	Of 9-5/8	" Intermediate Casing	273,000		273,000
37	4,500	Of 7-3/4	" Intermediate Casing	117,000		117,000
38	4,000	Of 5	" Production Casing		52,000	52,000
39		Of	" Tie-Back Casing			
40	5,000	Of 3-1/2	" Tubing		65,000	65,000
41	11,000	Of 3-1/2	" Tubing		110,000	110,000
42		Of	" Tubing			
43			Float Equipment	5,500	1,200	6,700
44			Liner Equipment	7,000	7,000	14,000
45			Wellhead Equipment	15,000	35,000	50,000
46			Producing Facilities, Tank Battery, Flowline		50,000	50,000
47			Packers & Other Subsurface Tools		7,500	7,500
48			Contingencies (10% of Tangibles)	55,000	32,800	87,800
49						
50						
51			TOTAL TANGIBLES	604,500	360,500	965,000
52			TOTAL WELL COST	1,908,000	499,100	2,407,100

COMPANY APPROVAL

By	Date	By	Date

JOINT OPERATOR APPROVAL

Date \_\_\_\_\_ By \_\_\_\_\_  
Firm \_\_\_\_\_ Title \_\_\_\_\_

DRAFT

dr/

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
COMMISSION OF NEW MEXICO FOR  
THE PURPOSE OF CONSIDERING:

CASE NO. 5777 (Reopened)

Order No. R- 5316

APPLICATION OF GIFFORD & MITCHELL AND  
M. B. WISENBAKER FOR POOL CREATION,  
POOL RULES, AND A NON-STANDARD GAS SPACING  
UNIT, LEA COUNTY, NEW MEXICO.

NOMENCLATURE

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on October 27,  
19 76, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this        day of November, 1976, the Commission,  
a quorum being present, having considered the testimony, the record,  
and the recommendations of the Examiner, and being fully advised  
in the premises,

FINDS:

(1) That due public notice having been given as required by  
law, the Commission has jurisdiction of this cause and the subject  
matter thereof.

(2) That the applicant, Gifford & Mitchell and M. B.  
Wisembaker, seeks the creation of a new gas pool for Pennsylvanian  
production in Lea County, New Mexico, and the promulgation of  
special rules and regulations governing said pool, including a  
provision for 640-acre spacing <sup>and proration</sup> units.

(3) That said pool offsets a commercial gas pool for  
Pennsylvanian production which applicant has discovered  
by a well drilled in Section 13, Public School Land Block  
C-23, Winkler County, Texas.

(A) That the Texas Railroad Commission has adopted rules  
for the aforesaid pool providing for 640-acre spacing and  
proration units.

(5) That in order to prevent the economic loss caused by the drilling of unnecessary wells, to avoid the augmentation of risk arising from the drilling of an excessive number of wells, to prevent reduced recovery which might result from the drilling of too few wells, and to otherwise prevent waste and protect correlative rights, temporary special rules and regulations providing for 640-acre spacing units should be promulgated for the Horse Back-Pennsylvanian Gas Pool.

(6) That the temporary special rules and regulations should provide for limited well locations in order to assure orderly development of the pool and protect correlative rights.

(7) That special rules and regulations should be established for a temporary period to expire one year from the date that a pipeline connection is first obtained for a well in the pool; that during this temporary period all operators in the subject pool should gather all available information relative to drainage and recoverable reserves.

(8) That this case should be reopened at an examiner hearing one year from the date that a pipeline connection is first obtained for a well in the Horse Back-Pennsylvanian Gas Pool, at which time the operators in the subject pool should appear and show cause why the Horse Back-Pennsylvanian Gas Pool should not be developed on 320-acre spacing units.

(9) That the first operator to obtain a pipeline connection for a well in the Horse Back-Pennsylvanian Gas Pool should notify the Commission in writing of such fact, and that the Commission should thereupon issue a supplemental order designating an exact date for reopening this case.

(10) That applicant further seeks approval for a 589.52-acre non-standard gas spacing and production unit comprising all of partial Sections 33 and 34, Township 26 South, Range 36 East, NMPM, Lea County, New Mexico, to be dedicated to applicant's Horse Back Well No. 1, located 1000 feet from the South line and 1980 feet from the East line of said Section 33.

(11) That approval of said non-standard unit will not impair correlative rights nor cause waste.

IT IS THEREFORE ORDERED:

(1) That a new pool in Lea County, New Mexico, classified as a gas pool for Pennsylvanian production, is hereby created and designated the Horse Back-Pennsylvanian Gas Pool, comprising the following described area:

LEA COUNTY, NEW MEXICO  
TOWNSHIP 26 SOUTH, RANGE 36 EAST, NMPM  
Sections 33 and 34: All

(2) That temporary Special Rules and Regulations for the Horse Back-Pennsylvanian Gas Pool, Lea County, New Mexico, are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS<sup>27</sup>  
FOR THE  
HORSE BACK-PENNSYLVANIAN GAS POOL

RULE 1. Each well completed or recompleted in the Horse Back-Pennsylvanian Gas Pool or in the Pennsylvanian formation within one mile thereof, and not nearer to or within the limits of another designated Pennsylvanian gas pool, shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth.

RULE 2. Each well shall be located on a standard unit containing 640 acres, more or less, consisting of a governmental section.

RULE 3. The Secretary-Director of the Commission may grant an exception to the requirements of Rule 2 without notice and hearing when an application has been filed for a non-standard unit and the unorthodox size or shape of the unit is necessitated by a variation in the legal subdivision of the United States Public Land Surveys, or the following facts exist and the following provisions are complied with:

- (a) The non-standard unit consists of quarter-quarter sections or lots that are contiguous by a common bordering side.

- (b) The non-standard unit lies wholly within a governmental section and contains less acreage than a standard unit.
- (c) The applicant presents written consent in the form of waivers from all offset operators and from all operators owning interests in the section in which the non-standard unit is situated and which acreage is not included in said non-standard unit.
- (d) In lieu of paragraph (c) of this rule, the applicant may furnish proof of the fact that all of the aforesaid operators were notified by registered or certified mail of his intent to form such non-standard unit. The Secretary-Director may approve the application if no such operator has entered an objection to the formation of such non-standard unit within 30 days after the Secretary-Director has received the application.

RULE 4. Each well shall be located no nearer than 1650 feet to the outer boundary of the section and no nearer than 330 feet to any governmental quarter-quarter section line.

RULE 5. The Secretary-Director may grant an exception to the requirements of Rule 4 without notice and hearing when an application has been filed for an unorthodox location necessitated by topographical conditions or the recompletion of a well previously drilled to another horizon. All operators offsetting the proration unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all operators offsetting the proration unit or if no objection to the unorthodox location has been entered within 20 days after the Secretary-Director has received the application.

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IT IS FURTHER ORDERED:

(1) That the locations of all wells presently drilling to or completed in the Horse Back-Pennsylvanian Gas Pool or in the Pennsylvanian formation within one mile thereof are hereby approved; that the operator of any well having an unorthodox location shall notify the Hobbs District Office of the Commission in writing of the name and location of the well on or before December 1, 1976.

(2) That, pursuant to Paragraph A. of Section 65-3-14.5, NMSA 1953, contained in Chapter 271, Laws of 1969, existing wells in the Horse Back-Pennsylvanian Gas Pool shall have dedicated thereto 640 acres in accordance with the foregoing pool rules; or, pursuant to Paragraph C. of said Section 65-3-14.5, existing wells may have non-standard spacing or proration units established by the Commission and dedicated thereto.

Failure to file new Forms C-102 with the Commission dedicating 640 acres to a well or to obtain a non-standard unit approved by the Commission within 60 days from the date of this order shall subject the well to cancellation of allowable. Until said Form C-102 has been filed or until a non-standard unit has been approved, and subject to said 60-day limitation, each well presently drilling to or completed in the Horse Back-Pennsylvanian Gas Pool or in the Pennsylvanian formation within one mile thereof shall receive no more than one-half of a standard allowable for the pool.

(3) That this case shall be reopened at an examiner hearing one year from the date that a pipeline connection is first obtained for a well in the Horse Back-Pennsylvanian Gas Pool, at which time the operators in the subject pool may appear and show cause why the Horse Back-Pennsylvanian Gas Pool should not be developed on 320-acre spacing units.

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(4) That the first operator to obtain a pipeline connection for a well in the Horse Back-Pennsylvanian Gas Pool shall notify the Commission in writing of such fact, and that the Commission will thereupon issue a supplemental order designating an exact date for reopening this case.

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

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

(5) That a 58752-acre non-standard gas spacing and proration unit comprising all of partial Sections 33 and 34, Township 26 South, Range 36 East, N41PM, Lea County, New Mexico, is hereby approved, said unit to be dedicated to applicant's Horse Back Well No. 1, located 1000 feet from the South line and 1980 feet from the East line of said Section 33.