

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION  
STATE LAND OFFICE BLDG.  
SANTA FE, NEW MEXICO

17 December 1986

EXAMINER HEARING

IN THE MATTER OF:

Cases called on Docket No. 38-86	CASE
for which no testimony was presented	9034
on this date.	

BEFORE: David R. Catanach, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Commission:	Jeff Taylor
	Legal Counsel for the Division
	Oil Conservation Division
	State Land Office Bldg.
	Santa Fe, New Mexico 87501

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MR. CATANACH: Call next Case  
9034.

MR. TAYLOR: The application of  
Cities Service Oil and Gas Corporation for an unorthodox oil  
well location, Lea County, New Mexico.

MR. CATANACH: Case 9034 was  
heard November 19th, 1986, and was readvertised for a change  
in the proration unit only.

Are there any appearances at  
this time?

If not, 9034 will be taken  
under advisement.

(Hearing concluded.)

## C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY the foregoing Transcript of Hearing before the Oil Conservation Division (Commission) was reported by me; that the said transcript is a full, true, and correct record of this portion of the hearing, prepared by me to the best of my ability.

Sally W. Boyd CSR

I do hereby certify that the foregoing is a complete report of the proceedings in the Examiner hearing of Case No. 9134, heard by me on 12/17, 1946.

David R. Catant, Examiner  
Oil Conservation Division

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION  
STATE LAND OFFICE BLDG.  
SANTA FE, NEW MEXICO

19 November 1986

EXAMINER HEARING

IN THE MATTER OF:

Application of Cities Service Oil  
and Gas Corporation for an unortho-  
dox oil well location, Lea County,  
New Mexico.

CASE  
9034

BEFORE: David R. Catanach, Examiner

## TRANSCRIPT OF HEARING

### A P P E A R A N C E S

For the Division:

Jeff Taylor  
Attorney at Law  
Legal Counsel to the Division  
State Land Office Bldg.  
Santa Fe, New Mexico 87501

For the Applicant:

W. Thomas Kellahin  
Attorney at Law  
KELLAHIN, KELLAHIN, & AUBREY  
P. O. Box 2265  
Santa Fe, New Mexico 98501

## I N D E X

## STERLING FLY

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## E X H I B I T S

Cities Exhibit One, Plat

Cities Exhibit Two, Map 5

Cities Exhibit Three, Cross Section 7

Cities Exhibit Four, Waivers 9

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2 MR. CATANACH: We'll call next  
3 Case 9034.

4 MR. TAYLOR: The application  
5 of Cities Service Oil and Gas Corporation for an unorthodox  
6 oil well location, Lea County, New Mexico.

7 MR. CATANACH: Are there  
8 appearances in this case?

9 MR. KELLAHIN: If the Examiner  
10 please, I'm Tom Kellahin of Santa Fe, New Mexico, appearing  
11 on behalf of the applicant, and I have one witness to be  
12 sworn.

13 MR. CATANACH: Will the witness  
14 stand and be sworn?

15 Are there any other appearances  
16 in this case?

17  
18 (Witness sworn.)

19  
20 STERLING FLY,  
21 being called as a witness and being duly sworn upon his  
22 oath, testified as follows, to-wit:

23  
24  
25

## DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Mr. Fly, for the record will you please state your name and occupation?

A My name is Sterling Fly. I'm an exploitation geologist for the Cities Service Oil and Gas Corporation.

Q Mr. Fly, have you previously testified before the Division and had your qualifications as a geologist accepted and made a matter of record?

A Yes, I have.

Q And pursuant to your employment by Cities Service Oil and Gas Corporation, have you made a study of the geologic facts surrounding this application?

A Yes.

MR. KELLAHIN: We tender Mr. Fly as an expert petroleum geologist.

MR. CATANACH: Mr. Fly is considered qualified.

Q Mr. Fly, let me direct your attention to what we've marked as Exhibit Number One, which is a plat of the area, and have you identify for the Examiner what the proposed footage location is for the subject well.

A Cities Service proposes to drill the Elkan A No. 2 at 2310 feet from north line and 990 feet from

1 west line of Section 25, Township 13 South, Range 34 East.

2 Q What is the anticipated producing pool or  
3 formation to which the well will be drilled?

4 A The primary objective is the Bough C for-  
5 mation.

6 Q And you are in the Alston Ranch Upper  
7 Pennsylvanian Pool, is that correct?

8 A Yes, sir.

9 Q Pursuant to those pool rules, in what way  
10 is your proposed application an unorthodox well location?

11 A The field rules state that the well  
12 should be drilled within 150 feet of the center of the quar-  
13 ter quarter section. Our location is not -- our proposed  
14 unorthodox location does not fall within 150 feet of the  
15 center.

16 Q What are the reasons you have concluded  
17 as a geologist that the unorthodox location is necessary?

18 A Well, I'll refer to the structural geolo-  
19 gy map, Figure 1.

20 Q All right, we have marked that as Exhibit  
21 Number Two, Mr. Examiner.

22 A Okay, Exhibit Two. On this map in Sec-  
23 tion 25 we have drawn in both the proposed location and a  
24 standard location. They're shown with arrows pointing to  
25 them.



1                   Our mapping indicates that a standard lo-  
2 cation would be too low structurally and probably be too  
3 close to our estimated oil/water contact, so we're trying to  
4 move up-structure and away from the oil/water contact.

5                   Q           What is the propose orientation of the  
6 spacing and proration unit for the well?

7                   A           We propose that the -- in the northwest  
8 quarter of Section 25, that the proration units be made --  
9 well, one on the west half of the northwest quarter and one  
10 on the east half of the northwest quarter.

11                  Q           For this well, then, it will be a stand-  
12 up proration unit consisting of the west half of the north-  
13 west quarter.

14                  A           Yes, sir.

15                  Q           And is that permitted under the pool  
16 rules for this pool? The pool rules do not require any spe-  
17 cific orientation of the proration unit, do they?

18                  A           No, no, they don't.

19                  Q           All right.

20                               MR. KELLAHIN: Mr. Examiner, I  
21 note a typographical error on the notice for the hearing.  
22 It referenced the spacing unit to be the south half of the  
23 northwest quarter. I think it's insignificant insofar as  
24 the only purpose for our application is the unorthodox loca-  
25 tion and the orientation of the spacing unit is one that is

1 selected by the operator and is consistent with the pool  
2 rules, and we would believe it not necessary to readvertise  
3 the case.

4 We've also obtained waivers  
5 from all the offset operators as to the well.

6 MR. CATANACH: Was the notice  
7 to the offset operators correct?

8 MR. KELLAHIN: Yes.

9 Q Mr. Fly, let me have you turn now to Ex-  
10 hibit Number Three and describe what significance you reach  
11 as a geologist based upon a review of the cross section  
12 material?

13 A Okay. Exhibit Three is a cross section A  
14 to A', as shown on the structure map.

15 It includes Union of California State 25  
16 Well at A' and our, Cities Service Elkan A No. 1 and then  
17 goes to two shot points which were used for structural con-  
18 trol in developing the structure map.

19 At -6390 on the Elkan A No. 1 Well is our  
20 estimated oil/water contact. Log analysis for the Bough C  
21 gave an average water saturation in the Elkan A No. 1 of 32  
22 percent and for the Bough C in the No. 1 State 25 that water  
23 saturation is 55 percent.

24 So the estimated oil/water contact at -  
25 6390 is considered the most conservative placement of that,

1 being placed at the base of the productive interval in the  
2 -- in the Elkan A No. 1.

3 Q If a well were to be drilled at the clos-  
4 est standard location, do you have an estimate, Mr. Fly, of  
5 the amount of oil that could be recovered at that standard  
6 location?

7 A Our reservoir engineering group has  
8 determined that a difference of 24,000 barrels, approximate-  
9 ly, could be made in the proposed location over the standard  
10 location.

11 Q Will approval of the proposed unorthodox  
12 location provide to Cities Service the opportunity to re-  
13 cover oil underlying this spacing and proration unit that  
14 you would not otherwise be able to recover?

15 A Yes, it would and it would still leave us  
16 the option of -- of another location in the eastern prora-  
17 tion unit.

18 Q What is the current status of the drill-  
19 ing of this well, Mr. Fly?

20 A Based on an approval, verbal approval by  
21 the Commission, we commenced the well last week.

22 Q And what is the current status of the  
23 drilling, do you know?

24 A It is drilling at approximately 500 feet.

25 Q Were Exhibits One, Two and Three prepared

1 by you or compiled under your direction and supervision?

2 A Yes, they were.

3 Q And the geologic interpretation on Exhi-  
4 bits Two and Three represents your work product?

5 A Yes.

6 MR. KELLAHIN: Exhibit Number  
7 Four, Mr. Catanach, is the waivers of the offset operators  
8 and the notices to those individuals.

9 We would move at this time the  
10 introduction of the applicant's Exhibits One through four.

11 MR. CATANACH: Exhibits One  
12 through Four will be admitted into evidence.

13 MR. KELLAHIN: And that con-  
14 cludes our examination of Mr. Fly.

15

16 CROSS EXAMINATION

17 BY MR. CATANACH:

18 Q Mr. Fly, you stated that your engineers  
19 had done a study and come up with 24,000 barrels difference?

20 A Yes, sir.

21 Q How did they arrive at that figure?

22 A Well, they took a -- for each location,  
23 they determined the drainage radius of -- well, based on the  
24 Elkan A No. 1, they determined that that was draining approx-  
25 imately 104 acres. So they used those same figures for

1 each of the locations and then took the area within the cir-  
2 cle defined, which is centered about these two locations,  
3 took the area of probably production, based on the structure  
4 map, in other words within the dashed line there on the  
5 structural closure, and came up with a difference of a pro-  
6 ductive area of 44.3 acres for the standard location and  
7 67.8 acres for the proposed location.

8 MR. CATANACH: I have no fur-  
9 ther questions of the witness.

10 He may be excused.

11 Is there anything further in  
12 Case 9034?

13 MR. KELLAHIN: No, sir.

14 MR. CATANACH: If not, it will  
15 be taken under advisement.

16  
17 (Hearing concluded.)  
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## C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY  
CERTIFY that the foregoing Transcript of Hearing before the  
Oil Conservation Division (Commission) was reported by me;  
that the said transcript is a full, true, and correct record  
of the hearing, prepared by me to the best of my ability.

Sally W. Boyd CSR

I do hereby certify that the foregoing is  
a complete record of the proceedings in  
the Examiner hearing of Case No. 9034,  
heard by me on Nov 19, 1986.

David R. Catanzak, Examiner  
Oil Conservation Division