

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

2 April 1986

EXAMINER HEARING

IN THE MATTER OF:

Application of Mobil Producing Texas      CASE  
and New Mexico, Inc., for an unortho-      8868  
dox oil well location, Lea County,  
New Mexico.

BEFORE: Michael E. Stogner, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

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

For the Applicant:      William F. Carr  
Attorney at Law  
CAMPBELL & BLACK P. A.  
P. O. Box 2208  
Santa Fe, New Mexico 87501

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I N D E X

KRISHNA K. SINGH

Direct Examination by Mr. Carr 2

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E X H I B I T S

Mobil Exhibit One, Letter 5

Mobil Exhibit Two, Plat 6

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MR. STOGNER: Call next Case Number 8868, which is the application of Mobil Producing Texas and New Mexico, Incorporated, for an unorthodox oil well location, Lea County, New Mexico.

Call for appearances.

MR. CARR: May it please the examiner, my name is William F. Carr with the law firm Campbell & Black, P. A., of Santa Fe, appearing on behalf of Mobil Producing Texas and New Mexico, Inc.

I have one witness who needs to be sworn.

MR. STOGNER: Are there any other appearances?

Will the witness please stand and be sworn at this time.

(Witness sworn.)

KRISHNA K. SINGH,

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

## 1 DIRECT EXAMINATION

2 BY MR. CARR:

3 Q Would you state your full name, please?

4 A My full name is Krishna K. Singh.

5 Q Mr. Singh, where do you reside?

6 A In Midland, Texas.

7 Q By whom are you employed and in what  
8 capacity?9 A I'm employed by Mobil Producing Texas and  
10 New Mexico, Inc., as the Senior Reservoir Engineer.11 Q Have you previously testified before the  
12 Division and had your credentials as an engineer accepted  
13 and made a matter of record?

14 A No, not before this Division.

15 Q Would you briefly summarize for Mr. Stog-  
16 ner your educational background and then review your work  
17 experience?18 A Okay. I have a Master's degree in petro-  
19 leum engineering from University of Missouri at Rolla, and  
20 I've been employed by Mobil for ten years as a reservoir en-  
21 gineer.22 Q Do your duties with Mobil include the  
23 responsibility for a portion of southeastern New Mexico  
24 which is the subject of today's case?

25 A Yes, that's correct.

1 Q Are you familiar with the application  
2 filed in this case on behalf of Mobil?

3 A Yes, I am.

4 Q Are you familiar with the subject area and  
5 the proposed unorthodox well location?

6 A That is correct.

7 MR. CARR: We tender Mr. Singh  
8 as an expert witness in petroleum engineering.

9 MR. STOGNER: Mr. Singh is so  
10 qualified.

11 Q Mr. Singh, would you briefly state what  
12 Mobil seeks with this application?

13 A By this application we seek approval of  
14 unorthodox location in our Vacuum Grayburg-San Andres Pool  
15 in the Bridges State Waterflood Project in Lea County.

16 Q Mr. Singh, would you provide Mr. Stogner  
17 with a brief history of the events which have resulted in  
18 today's hearing, and in so doing you may want to refer to  
19 what has been marked for identification as Mobil Exhibit  
20 Number One?

21 A Okay. As presented here as Exhibit Num-  
22 ber One, we requested approval of unorthodox well locations  
23 for Wells No. 509 and 510 for administrative approval.

24 No. 510 was approved and 509 is the sub-  
25 ject of today's hearing.

1           Q           And this letter has attached to it var-  
2 ious exhibits, including plats identifying the locations of  
3 the wells.

4           A           Yes, sir. It has attachments C-101 and  
5 102.

6           Q           Is the area which is the subject of to-  
7 day's hearing governed by statewide spacing rules?

8           A           Yes, it does.

9           Q           And what are the spacing requirements for  
10 oil wells in this area?

11          A           The spacing requirements for oil well in  
12 this area are 40-acre units, according to Division Rule 104.

13          Q           And what are the well location require-  
14 ments? How far back from a boundary of the spacing unit  
15 should a well be located?

16          A           A well should be located at least 330  
17 feet from the boundary of a spacing unit.

18          Q           How close to the boundary of this spacing  
19 unit is Mobil's proposed well location?

20          A           Our proposed well location is 125 feet  
21 from the boundary of the spacing unit.

22          Q           Mr. Singh, would you now refer to what  
23 has been marked as Exhibit Number Two, identify this and re-  
24 view it for the examiner?

25          A           Yes. Presented in Exhibit Two in this

1 plat, it shows the Mobil acreage in this area and shaded in  
2 the yellow and also cross hatched, you see the boundary of  
3 the Bridges State project, and it also shows the location of  
4 the proposed well 509, indicated by a red arrow there inside  
5 the shaded area.

6 Q This also shows the existing wells in the  
7 Bridges State cooperative waterflood?

8 A Yes, it shows the location of the well in  
9 relation to other existing producers and injectors.

10 Q And to the south and east it also shows  
11 Texaco's unit, does it not?

12 A Yes, to the south is the Texaco Central  
13 Vacuum Unit, which is also developed on 20-acre 5-spot pat-  
14 terns.

15 Q Now what is the primary objective in this  
16 area, Mobil's primary objective in this unit?

17 A The primary objective in this unit is to  
18 maximize oil recovery from this existing secondary recovery  
19 project. The last two years we have been infill drilling on  
20 20-acre spacing and this well is continuation of that way  
21 that we have been doing for the last two years.

22 Q What formation are we talking about here,  
23 Mr. Singh?

24 A We're talking about here San Andres res-  
25 ervoir.

1           Q           And there is development on a 5-spot pat-  
2 tern already within the unit?

3           A           Yes, sir.

4           Q           And is Texaco also developing the San An-  
5 dres on a 5-spot pattern?

6           A           That's correct, both Texaco and Phillips.

7           Q           And this acreage was originally fully de-  
8 veloped on 40 and now you're coming back and developing it  
9 on a denser pattern.

10          A           That's true.

11          Q           Why is approval of this particular unor-  
12 thodox location being sought?

13          A           Our study indicates that we will maximize  
14 our recovery by placing this well at the location we are re-  
15 questing.

16          Q           And this is centrally located between in-  
17 jection wells?

18          A           Right.

19          Q           Were there any surface considerations in  
20 placing the well at this particular location?

21          A           Yes. There are power lines which forced  
22 us to move this location where it is now.

23          Q           Mr. Singh, do you happen to know why this  
24 well did not qualify for administrative approval?

25          A           This is because the Division rules which

1 state that location can be a minimum of 330 feet from the  
2 boundary of the spacing unit.

3 Q Is this location also in close proximity  
4 to a lease line within the waterflood area?

5 A Yes, it is, to the lease line of the  
6 State J.

7 Q What volume of oil does Mobil expect to  
8 recover from a well at this location?

9 A Our estimated recovery from this well is  
10 70,000 barrels.

11 Q In your opinion is this oil that other-  
12 wise would not be recovered from this area?

13 A That's right, based upon our study of  
14 patterns and sweep, this is the location for this recovery.

15 Q Mr. Singh, does Mobil own the working in-  
16 terest on all the offsetting tracts?

17 A That's right.

18 Q What kind of a lease is this, State, Fed-  
19 eral, or fee?

20 A This is a State.

21 Q Have you checked to determine whether or  
22 not this lease and the offsetting lease to the west have  
23 proceeds paid to the same royalty account?

24 A Yes. We checked with the NMOCD personnel  
25 and it's the same royalty interest.

1 Q And so the same beneficiaries share no  
2 matter what side of the lease line they happen to fall on.

3 A That's right. It's the same beneficiaries  
4 for all the leases.

5 Q Since Mobil operates all the offsetting  
6 acreage and has the surface rights, was any notice required  
7 to be given on this case?

8 A No. No notice was required to any  
9 operators. This hearing was prompted by State rules.

10 Q In your opinion will granting this  
11 application be in the best interest of conservation and the  
12 prevention of waste?

13 A I believe so.

14 Q Were Exhibits One and Two prepared by you  
15 or compiled under your direction?

16 A Yes, sir. I'm the engineer assigned for  
17 this project.

18 MR. CARR: At this time, Mr.  
19 Stogner, we would offer Mobil Exhibits One and Two.

20 MR. STOGNER: Exhibits One and  
21 Two will be admitted into evidence.

22 MR. CARR: And that concludes  
23 my direct examination of Mr. Singh.

24

25

## 1 CROSS EXAMINATION

2 BY MR. STOGNER:

3 Q Mr. Singh, how far is this well off of  
4 the west line?

5 A Sir, it's 125 feet.

6 Q Now in Exhibit Number Two, this is all  
7 within the Bridges State Unit, or what's this unit called?8 A Definitely it's within that unit. This  
9 project is called Bridges State Co-op Project.10 Q And it's really not -- the yellow is not  
11 then unitized throughout.12 A Well, it's all Mobil acreage, owned 100  
13 percent by Mobil.14 Q So the cooperative unit takes in the  
15 State VA Lease, the Bridges State Lease.16 A Yes, sir, and the State G and J and II,  
17 the small leases there.18 Q This is really not a unitized area, per  
19 se.

20 A No.

21 MR. CARR: No, this is not un-  
22 der a unit agreement. It's just operated under a coopera-  
23 tive waterflood arrangement and some certain lease agree-  
24 ments or boundary agreements with Texaco down to the south-  
25 east.

1           Q           So thereby it did not qualify for admin-  
2 istrative approval because it was more than three -- less  
3 than 330 feet from the outer boundary of the lease, or that  
4 certain unitized area.

5                   MR. CARR: That is correct.

6                   MR. STOGNER: I was somewhat  
7 confused on that point.

8                   MR. CARR: It was the proximity  
9 to the lease line that brought the matter on for hearing.

10                  MR. STOGNER: Okay, I have o  
11 further questions of this witness.

12                  Are there any other questions  
13 of Mr. Singh?

14                   If not, he may be excused.

15                   Mr. Carr, is there anything  
16 further in Case 8868?

17                   MR. CARR: Nothing further, Mr.  
18 Stogner.

19                   MR. STOGNER: Does anybody else  
20 have anything further in this case?

21                   Then this case will be taken  
22 under advisement.

23                   This hearing stands adjourned.

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25                   (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. 8868, heard by me on 2 April 1986.  
Michael E. [Signature], Examiner  
Oil Conservation Division