

## NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARINGSANTA FE, NEW MEXICOHearing Date APRIL 22, 1993 Time: 8:15 A.M.

NAME	REPRESENTING	LOCATION
Maurice Tremaine	Beyram Co.	SF
W. Kellchian	Kellchian & Kellchian	Santa Fe
William F. Jan	Tamphel, Jan, Long & Stender	Santa Fe
Alan Emmendorfer	Glad E & P	Farmington
J. C. Johnson	Pet. Dev Corp	Albuquerque
J. C. Johnson Jr	✓	✓
James Bruce	Humble Co. from	SF
Craig Ambler	The Gary Williams Co.	
Dave Messé	The Gary Williams Co.	Denver, Co.
Hugh Harvey	The Gary Williams Co.	Denver, Co.
Ruth Ross	Self / Howard Ross	Santa Fe
S.B. DAVES	MERIDIAN OIL	Farmington, NM
Tom Yersak	Meridian Oil	Farmington, NM

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STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING )  
CALLED BY THE OIL CONSERVATION )  
DIVISION FOR THE PURPOSE OF )  
CONSIDERING: ) CASE NO. 10713

APPLICATION OF PETROLEUM DEVELOPMENT  
CORPORATION  
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REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

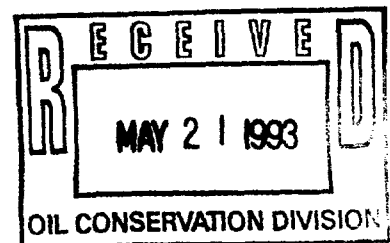
BEFORE: Michael E. Stogner, Hearing Examiner

April 22, 1993

Santa Fe, New Mexico

This matter came on for hearing before the  
Oil Conservation Division on April 22, 1993, at the  
Oil Conservation Division Conference Room, State Land  
Office Building, 310 Old Santa Fe Trail, Santa Fe, New  
Mexico, before Deborah O'Bine, RPR, Certified Court  
Reporter No. 63, for the State of New Mexico.

**ORIGINAL**



## I N D E X

April 22, 1993  
Examiner Hearing  
CASE NO. 10713

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APPEARANCES

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## PETROLEUM DEVELOPMENT CORPORATION'S WITNESSES:

J.C. JOHNSON

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## REPORTER'S CERTIFICATE

13

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CUMBRE COURT REPORTING

P.O. BOX 9262

SANTA FE, NEW MEXICO 87504-9262

(505) 984-2244

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

FOR THE DIVISION: ROBERT G. STOVALL, ESQ.  
General Counsel  
Oil Conservation Commission  
State Land Office Building  
310 Old Santa Fe Trail  
Santa Fe, New Mexico 87501

FOR THE APPLICANT: KEGEL LAW FIRM  
226 Los Alamos Drive  
Española, New Mexico 87532  
BY: ANNIE-LAURIE COOGAN, ESQ.

CUMBRE COURT REPORTING

P.O. BOX 9262

SANTA FE, NEW MEXICO 87504-9262

(505) 984-2244

1 EXAMINER STOGNER: I'll call this hearing  
2 to order for Docket No. 11-93. I'm Michael E.  
3 Stogner, appointed hearing examiner for today's  
4 cases. Please note today's date, April 22, 1993. At  
5 this time I'll call case 10713.

6 MR. STOVALL: Application of Petroleum  
7 Development Corporation for a high angle/horizontal  
8 directional drilling pilot project and for special  
9 operating rules therefor, Chaves County, New Mexico.

10 EXAMINER STOGNER: Call for appearances.

11 MS. COOGAN: Annie-Laurie Coogan for  
12 Petroleum Development Corporation.

13 EXAMINER STOGNER: Are there any other  
14 appearances?

15 MS. COOGAN: Mr. Examiner, we have our  
16 expert, Mr. Johnson.

17 EXAMINER STOGNER: Will the witness please  
18 stand to be sworn?

19 (Witness sworn.)

20 MS. COOGAN: Mr. Examiner, this was part of  
21 an original application submitted to you on March 1.  
22 There have been three orders entered on the other four  
23 sections, and they were Case Order Nos. R-9877,  
24 R-9878, and R-9876. The parcel Strange Federal No. 4,  
25 Unit 1, Section 25, Township 7 South, Range 31 East

1 was not heard on April 8, and it was resubmitted for  
2 today's date, April 22.

3 Mr. Johnson is here as our expert witness  
4 on this application.

5 J.C. JOHNSON,  
6 the witness herein, after having been first duly sworn  
7 upon his oath, was examined and testified as follows:

8 EXAMINATION

9 BY MS. COOGAN:

10 Q. Mr. Johnson, would you state your name?

11 A. My name is J.C. Johnson. I'm President of  
12 Petroleum Development Corporation, Albuquerque, New  
13 Mexico. I've had various positions as a petroleum  
14 engineer in the oil and gas business for 37 years.

15 MS. COOGAN: Will you accept Mr. Johnson as  
16 an expert?

17 EXAMINER STOGNER: Mr. Johnson is so  
18 qualified.

19 MS. COOGAN: Thank you.

20 Q. Would you please tell the examiners why you  
21 want to -- why have you made this application.

22 A. First of all, I have a copy of the  
23 application with copies, certified receipts of the  
24 offset operators. The next exhibit has four exhibits  
25 for this hearing. I submit three copies to you for

1 that.

2 I have four exhibits here. No. 1 exhibit  
3 is a lease map. You'll notice that if you turn it  
4 open to the map, the underlined in red shows the  
5 Strange Federal 4 well. This is the well we plan on  
6 horizontal drilling. It's located in Unit I of  
7 Section 25, Township 7 South, Range 31 East. It's  
8 offset to the east by Murphy Operating and to the  
9 north by Yates Petroleum.

10 Exhibit 2 consists of names and addresses  
11 of the offset operators.

12 Exhibit 3 is a horizontal drilling  
13 procedure, which also Exhibit 4 ties to it. It's just  
14 a schematic showing what we're planning on doing in  
15 this horizontal drilling program.

16 On Exhibit 4 I'd like to point out that on  
17 the left side of the schematic, it goes down to a  
18 cement plug. It says the plug will be left from 4,006  
19 to 4,047. That should be changed to 4,004 to tie in  
20 with the kick-off point.

21 Procedure will be to go out and squeeze off  
22 an upper set of perforations from 4,065 to 4,258 feet  
23 by setting a cement retainer at 4,047 feet and squeeze  
24 these perforations. We will then pull out of the  
25 hole, run into the hole with a retrievable packer set



1 at 3,539 and cement squeeze perforations from 3,835 to  
2 4,028.

3 We will then drill out the cement to just  
4 above the cement retainer, approximately 4,045 feet.  
5 We will then go in with a 5-1/2 inch sectioning mill  
6 and section casing from approximately 3,970 to 4,030  
7 feet and then set a cement plug, and drill that out to  
8 a kick-off point to be approximately 4,004 feet.

9 At this point we will run a directional  
10 survey, run in with the horizontal drilling tools,  
11 kick off with a cement plug at approximately 4,004  
12 feet. We will drill a 60-foot radii arc curve to an  
13 inclination of approximately 85 to 90 degrees, of  
14 which we will conduct surveys every five feet of the  
15 arc. These will both be azimuth and inclination  
16 surveys.

17 We will drill laterally approximately 720  
18 feet in a direction of our choice to a vertical depth  
19 of approximately 4,064 to 4,108 feet. This is the  
20 upper porosity zone in the P2 section of the San  
21 Andres.

22 In this lateral we will conduct surveys  
23 again, both azimuth and inclination, every 30 feet of  
24 the lateral. A distance of 100 feet will be  
25 maintained by the horizontal hole from the outer

1 boundaries of the 40-acre tract.

2 MS. COOGAN: Any questions?

3 EXAMINATION

4 BY EXAMINER STOGNER:

5 Q. Mr. Johnson, the purpose of this particular  
6 pilot project, is it similar to the others on which  
7 you were here two weeks ago?

8 A. That is correct.

9 Q. And essentially that purpose is, as I  
10 understand it, to open up more surface area in a  
11 producing horizon; is that correct?

12 A. That is correct. I would comment on that  
13 again. This field, by my calculations, show that  
14 there should be approximately 100,000 recoverable  
15 reserves per 40-acre spacing unit. This field on the  
16 average has only recovered approximately 27,000  
17 barrels. We feel like they're -- and also this field  
18 at the present time is producing approximately 270  
19 barrels of oil per day from I guess about 40 or 50  
20 wells now producing. There are over 200 wells in  
21 these fields which comprise of Tomahawk, Tom-Tom, and  
22 Cato, which are really, as you look at the map, really  
23 one field.

24 So we feel like there are a tremendous  
25 amount of reserves that have not been recovered by

1 these horizontal holes. We feel we have a very good  
2 chance of recovering sufficient reserves to have an  
3 economical project.

4 Q. Your Exhibit No. 4, are you proposing any  
5 particular direction, or is this exhibit submitted as  
6 a procedural matter?

7 A. It's presented as a procedural matter. We  
8 would like to have the option to do a direction of our  
9 choice. As you know, we're doing four wells. We  
10 could want to change our mind as we do one and decide  
11 we may do one, say, to the southeasterly direction, we  
12 may say it looks like it would be better to go to a  
13 northeasterly direction on these wells from the  
14 results we get and we may want to change them.

15 Q. And with this technology, you can even do  
16 both; is that correct?

17 A. That is correct.

18 Q. Thus the leeway in permitting such as what  
19 you have requested today would allow for that; is that  
20 correct?

21 A. That is correct.

22 EXAMINER STOGNER: I'll take administrative  
23 notice of the previous three orders in their cases.  
24 And with that I have no other questions of Mr.  
25 Johnson.

1 MR. STOVALL: Mr. Examiner, I do want to  
2 bring up one -- you've kind of raised the --

3 EXAMINATION

4 BY MR. STOVALL:

5 Q. I think, Mr. Johnson, in the previous  
6 cases, you've only asked for one leg off of -- one  
7 horizontal leg off of your well; is that correct?

8 A. That is correct.

9 Q. As I heard the examiner's question, he's  
10 kind of thinking that conceivably you could go for two  
11 legs off of a single vertical hole?

12 A. We could. That is a possible -- it's going  
13 to depend on the economics, the drainage we get and so  
14 forth. But, yes, if it shows to be economical, say, a  
15 well is spaced 660-660, we go to a diagonal direction  
16 at 790 feet, and we have tremendous results, and then  
17 as the offsets more likely -- that would be something  
18 that would be done at a later time, in my opinion, not  
19 at this particular time.

20 Q. I guess the question would be, does this  
21 need the flexibility to do that, or do you want to  
22 come back in after you've figured out what you --

23 A. I would be willing to come back in. I feel  
24 like the opposite direction possibly will be a  
25 situation of at least a year of results before we

1 would go out and drill another lateral out of the same  
2 wellbore.

3 Q. I think you testified in the other cases as  
4 to why you feel there's not a correlative rights  
5 problem getting within 100 feet?

6 A. No, that is correct.

7 Q. You could incorporate that?

8 A. I'll restate. This is going to help every  
9 operator out there if we can recover reserves that are  
10 economical because the cost of these projects are  
11 fairly expensive, not as expensive, necessarily, as a  
12 new well but close to it. And the other offset  
13 operators will have the same option of offsetting our  
14 wells and drilling a diagonal 150 from the lease  
15 lines, and hopefully we'll get those reserves that are  
16 available out there to be had.

17 MR. STOVALL: I have no further questions.

18 FURTHER EXAMINATION

19 BY EXAMINER STOGNER:

20 Q. Should these projects be successful, do you  
21 foresee a possibility in the future for the need of an  
22 administrative procedure in this particular pool for  
23 such authorization where you would have to come in  
24 hearing the whole time?

25 A. Yes, I do.

1 Q. This is essentially building information or  
2 receiving information where you can build such a case;  
3 is that correct?

4 A. That is correct. I feel like after we have  
5 the results from these wells, the other operators in  
6 the field, hopefully we can all get together and put  
7 it forth for administrative approval, hearing.

8 EXAMINER STOGNER: Any other questions of  
9 Mr. Johnson?

10 FURTHER EXAMINATION

11 BY MS. COOGAN:

12 Q. Mr. Johnson, does this prevent waste and  
13 promote oil conservation and protect the correlative  
14 rights which you've just discussed?

15 A. Yes. I think we got into the correlative  
16 rights things, and, of course, the prevention of  
17 water, in my opinion as an engineer, there's a lot of  
18 oil out there to be had that's not had, and horizontal  
19 drilling may be the answer to it.

20 EXAMINER STOGNER: Any other questions of  
21 Mr. Johnson? He may be excused. Anything further?

22 MS. COOGAN: No. Thank you.

23 EXAMINER STOGNER: Case No. 10713 will be  
24 taken under advisement. I do hereby certify that the foregoing is  
25 a complete record of the proceedings in  
the Examiner hearing of Case No. 10713.  
heard by me on 22 April 1993.

## 1 CERTIFICATE OF REPORTER

2  
3 STATE OF NEW MEXICO )

4 ) ss.

5 COUNTY OF SANTA FE )

6 I, Deborah O'Bine, Certified Shorthand  
7 Reporter and Notary Public, HEREBY CERTIFY that I  
8 caused my notes to be transcribed under my personal  
9 supervision, and that the foregoing transcript is a  
10 true and accurate record of the proceedings of said  
11 hearing.

12 I FURTHER CERTIFY that I am not a relative  
13 or employee of any of the parties or attorneys  
14 involved in this matter and that I have no personal  
15 interest in the final disposition of this matter.

16 WITNESS MY HAND AND SEAL, May 5, 1993.

17 *Deborah O'Bine*  
18

19 DEBORAH O'BINE  
20 CCR No. 63

