

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

12 April 1989

JUL 03 1995

EXAMINER HEARING

IN THE MATTER OF:

Application of Parker & Parsley Pet- CASE
roleum Company for downhole comming- 9647
ling, Eddy County, New Mexico.

BEFORE: Michael E. Stogner, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Division: Robert G. Stovall
Attorney at Law
Legal Counsel to the Division
State Land Office Bldg.
Santa Fe, New Mexico

For Parker & Parsley Karen Aubrey
Petroleum Company: Attorney at Law
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P. O. Box 2265
Santa Fe, New Mexico 87504

I N D E X

RANDY R. JOHNSON

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1 MR. STOGNER: This hearing
2 will come to order.

3 We'll call next Case Number
4 9647.

5 MR. STOVALL: Application of
6 Parker and Parsley Petroleum Company for downhole comming-
7 ling, Eddy County, New Mexico.

8 MR. STOGNER: Call for appear-
9 ances?

10 MS. AUBREY: Karen Aubrey,
11 with the Santa Fe firm of Kellahin, Kellahin & Aubrey, re-
12 presenting the applicant.

13 MR. STOGNER: Are there any
14 other appearances in this matter?

15 Will the witness please stand
16 and be sworn?

17
18 (Witness sworn.)

19
20 MR. STOGNER: Ms. Aubrey.

21
22 RANDY R. JOHNSON,
23 being called as a witness and being duly sworn upon his
24 oath, testified as follows, to-wit:
25

DIRECT EXAMINATION

BY MS. AUBREY:

Q Would you state your name, please?

A Randy R. Johnson.

Q And by whom are you employed?

A I'm employed by Parker and Parsley Petroleum.

Q Mr. Johnson, what are your duties for Parker and Parsley Petroleum?

A I am a petroleum engineer which takes care of all of New Mexico production and west Texas.

Q How long have you been employed by Parker and Parsley?

A Two years.

Q Have you ever testified before the New Mexico Oil Conservation Division before, Mr. Johnson?

A No.

Q Would you tell the examiner what your professional degrees are?

A I have an associate degree in petroleum technology from Midland College in '79 and in '83 I graduated from Oklahoma State University with a petroleum engineering degree.

Q And how long have you been employed as a petroleum engineer?

1 A I worked for Standard Oil Production for
2 five years prior to Parker and Parsley.

3 Q Are you familiar with the application
4 that Parker and Parsley has filed in Case Number 9647?

5 A I am.

6 MS. AUBREY: Mr. Examiner, I
7 tender Mr. Johnson as an expert petroleum engineer.

8 MR. STOGNER: Mr. Johnson is
9 so qualified.

10 Q Before we go into the exhibits, Mr.
11 Johnson, are there any time constraints connected with
12 Parker and Parsley's application to the Division here
13 today?

14 A Yes. We could lose our lease within two
15 weeks.

16 Q So after the hearing today you request
17 an order of the Division within the next two weeks, is that
18 correct?

19 A Please.

20 MR. STOGNER: Mr. Johnson,
21 would that be interpreted an April 30th lease deadline?

22 A Yes, sir.

23 MR. STOGNER: Okay.

24 Q Mr. Johnson, what does Parker and
25 Parsley seek by this application?

With the present production rate of the Brushy Canyon, Parker and Parsley can justify the cost of drilling out a cement retainer and the cast iron bridge plug to recover the remaining reserves in the Bone Springs, therefore avoiding waste of oil and gas.

MR. STOGNER: And what were those production figures again?

MR. STOGNER: Thank you.

If commingling is not granted Parker and

1 Parsley will be forced to abandon the Bone Springs reserves
2 and will have to drill a costly, high risk and unnecessary
3 well in the adjoining 40 acres and complete the Brushy
4 Canyon to hold the lease.

5 Q Mr. Johnson, the Brushy Canyon is what
6 is referred to in the advertisement as the Undesignated
7 East Loving Delaware Pool, is that right?

8 A That is correct.

9 Q Those are the same?

10 A Yes.

11 Q And the Brushy Canyon is spaced on what
12 kind of spacing?

13 A The Brushy Canyon is -- or the Delaware
14 is spaced on 40 acres, whereas --

15 Q The Bone Spring?

16 A 80 acres.

17 Q Let me have you refer to Exhibit Number
18 One. It's a 2-page exhibit. Can you tell the Examiner
19 what that shows?

20 A Exhibit Number One, the first page is
21 just a plat showing our laydown 80 lease with our Pardue
22 Farms No. 4 located on the lease, and it also indicates
23 the offset operators.

24 Q Is this a fee lease, Mr. Johnson?

25 A Yes, ma'am.

1 The second page is just a blown-up por-
2 tion of that plat which shows all the leases in that area
3 that Parker and Parsley operates.

4 Q Is Parker and Parsley's acreage out-
5 lined in yellow on that plat?

6 A Yes, ma'am.

7 Q So that's -- within the yellow outline
8 it's all Parker and Parsley's, is that right?

9 A Operated.

10 Q Let me have you look now at Exhibit Num-
11 ber Two, which is a 3-page exhibit. The first two pages
12 are C-116's, one for each formation, and the third page is
13 a tabulation which you've prepared, is that right?

14 A That is correct.

15 Q Would you explain those to the examiner?

16 A The first two pages are C-116's which
17 are the most current 24-hour productivity tests showing the
18 oil and gas and water production from the Bone Springs and
19 also from the Brushy Canyon.

20 And also attached, the third page, is
21 our formula for allocation of production from the Brushy
22 Canyon and the Bone Springs.

23 Q And this would be your proposed alloca-
24 tion in the event that the Division grants your request to
25 downhole commingle these two formations?

1 A That is correct.

2 Q What information did you use to come up
3 with your allocation?

4 A We used the -- our most recent produc-
5 tivity test to derive allocations.

6 Q In your opinion are these allocations
7 fair?

8 A Yes.

9 Q Are the working interests and royalty
10 interests in the Bone Spring and the Brushy Canyon common
11 in both zones?

12 A Yes, they are.

13 Q Let me have you look now at Exhibit
14 Number Three, which is a multi-page exhibit. Can you review
15 that for the Examiner?

16 A Yes. Exhibit Number Three are produc-
17 tion decline curves. The first one, first page is a de-
18 cline curve for the Bone Spring production prior to recom-
19 pletion. Your red curve is gas, the green is oil, of
20 course. From that curve, if you'll look at page two, we
21 did an estimated summary of the Bone Springs and Brushy
22 Canyon combined and these top two lines, the red being gas,
23 the green being oil, is that point of where the start of
24 our production for the recompletion is and then our curves
25 are estimated from offset production.

1 The slashed lines are, of course, data
2 of the Bone Springs alone, which you saw on page one.

3 Also attached, being that we only have
4 about 45 days of production from the Brushy Canyon, is a
5 resume of our recompletion for your information.

6 Q So you don't have a separate decline
7 curve for the Brushy Canyon formation, is that right?

8 A No, ma'am. Also attached are reserves
9 and economics that were obtained from a decline curve ana-
10 lysis, the first page being that of the Bone Springs and
11 it's the case of producing the Bone Springs alone and using
12 operating costs, it shows it to be uneconomical.

13 The page following it is also the Bone
14 Springs but using a case with zero dollars operating ex-
15 pense, combining it with the Brushy Canyon production,
16 which shows an additional reserves of -- down here it shows
17 a total of 2.6 and 35.6. These numbers are Parker and Par-
18 sley net numbers. The actual increase will be 2800 barrels
19 of oil and 36-million cubic feet.

20 Then following that is just a summary of
21 the Brushy Canyon alone and the following page is just a
22 summary of the combined totals.

23 Q And the totals are highlighted in yellow
24 on the exhibit, is that right?

25 A Yes, that is correct. What we are

1 trying to show with these reserves and economics is that by
2 combining and commingling the two zones, the value of the
3 reserves will be increased rather than producing in two
4 separate strings.

5 Q Can you describe the proposed recomple-
6 tion technique that you will use to -- to put the Bone
7 Springs back into production in the event that your com-
8 mingling is granted?

9 A Before our recompletion we ran a cement
10 bond log and right at the top of the Bone Springs our
11 cement wasn't as good as we'd like it to have been, so we
12 perforated and squeezed with a cement retainer and then set
13 a bridge plug; therefore, to go back into the Bone Springs
14 we will have to drill the cement retainer and bridge plug
15 out and then artificial lift both of them.

16 Q So you'll put both zones on artificial
17 lift if the commingling is granted.

18 A That's correct.

19 Q Let me have you look now at Exhibit
20 Number Four. Can you explain that for the examiner?

21 A Exhibit Number Four are estimated bottom
22 hole pressures for the Brushy Canyon in our Pardue Farms 27
23 No. 4 Well and an estimated bottom hole pressure for the
24 Bone Springs in a direct offset in the Pardue Farms 27 No.
25 5.

1 In the Brushy Canyon our calculated
2 bottom hole pressure was 2447 psig. In the Bone Springs
3 the calculated bottom hole pressure was 2580 psig. So the
4 pressures are very, very similar.

5 Q Why is it that you used the Pardue Farms
6 27 No. 5 Well for the bottom hole pressure in the Bone
7 Springs?

8 A Well, after setting our cement retainer
9 and the cast iron bridge plug, we weren't able to get back
10 into the Pardue Farms 27 No. 4.

11 Q How close is it, physically how close is
12 this No. 5 Well to the No. 4 Well, which is the subject of
13 the application?

14 A If you refer to page two of Exhibit One,
15 it is actually in the next 160 of Section 27. The No. 4
16 Well is highlighted in red. If you look directly towards
17 Loving you'll see the No. 5, it will be offset 160 acres.

18 Q And is the No. 5 Well a well that is
19 operated by Parker and Parsley?

20 A Yes, it is.

21 Q And in your professional opinion is it
22 appropriate to compare the bottom hole pressure in the No.
23 5 to the No. 4 Well?

24 A We feel it is because it has a high
25 fluid cut the same as our Bone Springs producer in the No.

1 4.

2 Q Let me have you look now at Exhibit
3 Number Five, which again is a multi-page exhibit. Would
4 you review what that exhibit shows, please?

5 A Exhibit Number Five are fluid analyses,
6 oil gravities and BTU contents of the fluids of both zones.

7 Page one is a water analysis taken and
8 you can see by the total hardness of these waters, the
9 chlorides and the total dissolved solids, they are very,
10 very common and compatible.

11 Page two and three of this exhibit are
12 actual run tickets, the first one being a run ticket taken
13 from the Brushy Canyon producer which we operate, the 27
14 No. 7, and you can see our observed gravity and tempera-
15 tures compared with the following page, the Bone Springs,
16 are very similar; therefore we feel the value of these
17 crudes would be the same.

18 Following these pages are gas analyses
19 of both Brushy Canyon and the Bone Springs and you can see
20 the BTU content of both are very similar and being that
21 they'll be sold at a master meter, we feel the value of
22 these gases will not be decreased by being commingled.

23 Q Mr. Johnson, Exhibit Number Six is a
24 certificate of mailing in compliance with Order No. R-8054,
25 which was prepared by our office certifying that copies of

1 this application were mailed by certified mail to all ap-
2 propriate parties, is that correct?

3 A That is correct.

4 MS. AUBREY: And, Mr. Stogner,
5 I believe one of the exhibit sets that you have in front of
6 you has the original certified mail cards attached to it.

7 MR. STOGNER: Yes, that will
8 be put in the record.

9 Q Mr. Johnson, were Exhibits One through
10 Five prepared either by you or under your supervision?

11 A Yes, they were.

12 MS. AUBREY: Mr. Stogner, I
13 offer Exhibits Number One through Six.

14 MR. STOGNER: Exhibits One
15 through Six will be -- will be admitted into evidence at
16 this time.

17 MS. AUBREY: Thank you.

18 Q Mr. Johnson, will the granting of Parker
19 and Parsley's application promote conservation, prevent
20 waste, and protect correlative rights?

21 A Yes, it will.

22 MS. AUBREY: Mr. Stogner, I
23 have no more questions of the witness.

24 MR. STOVALL: I have one ques-
25 tion, Mr. Examiner.

1 MR. STOGNER: Yes.

2
3 CROSS EXAMINATION

4 BY MR. STOVALL:

5 Q You indicated that -- as part of your
6 testimony that you have a lease expiration date on the
7 30th. If I understand you correctly, that well is current-
8 ly producing, is it not?

9 A Yes, sir. The Bone Springs is an
10 80-acre proration unit. We recompleted our Bone Springs
11 well into the Delaware Brushy Canyon, which is on 40-acre
12 proration units.

13 We are going to lose the adjoining 40
14 acres to that lease, which is in the middle of all of our
15 producing leases.

16 Q You had a separate lease? Is that what
17 you're saying or is there a Pugh clause in the --

18 A Well, it's a -- it's not really a sep-
19 arate lease. It's the same lease. It's just that because
20 we're not producing that complete 80 acres from the Bone
21 Springs, that we'll lose that other 40 and someone could
22 actually come in and drill a Brushy Canyon Well right in
23 the middle of our leases.

24 Does that make sense?

25 Q I'm assuming that your lease claim con-

1 tains something in the nature of a Pugh clause or some sort
2 of required production clause for every --

3 A Evidently. It's all dealing with the
4 proration unit.

5 Q Okay, you're not familiar with the
6 specific lease terms. You're just aware --

7 A No.

8 Q -- of this expiration by the (not
9 clearly understood.)

10 A Correct.

11 MR. STOGNER: Okay, that was
12 going to be some of my questions in there.

13 MR. STOVALL: Sorry. Save
14 your voice.

15

16 CROSS EXAMINATION

17 BY MR. STOGNER:

18 Q Mr. Johnson, I'm somewhat confused on
19 why you brought this to hearing and didn't go the adminis-
20 trative process. Was there any particular reason?

21 A Mr. Catanach said we would have to have
22 a hearing.

23 Q Okay, did he say why? Maybe I'm missing
24 something.

25 A Well, I believe it's because of the pro-

1 ration unit, because one is 80 acres and one is 40.

2 MS. AUBREY: Mr. Stogner, if I
3 may, I believe that the problem which Mr. Catanach identi-
4 fied was that the water production from the Brushy Canyon
5 is higher than that allowed under the Commission rules for
6 administrative approval of downhole commingling, and Mr.
7 Catanach determined it would have to come to hearing.

8 MR. STOGNER: Okay, I'm --
9 this well would produce in excess of, I believe, 80 barrels
10 a day and which was allowed for the water production?

11 A Actually it would be only allowed 50
12 barrels total --

13 MR. STOGNER: 50 barrels.

14 A -- production and --

15 Q And you're producing how much?

16 A 90 with the combined zones.

17 Q Okay. So the ownership between both
18 proration units is common. The production from both prora-
19 tion units, the oil production and gas production, is mar-
20 ginal in nature.

21 A Yes, sir.

22 Q It's just that the water production al-
23 lowable -- or I'm sorry, let me back up. The water produc-
24 tion allowed for an administrative procedure was in excess
25 of what was allowed for (not understood).

1 How is this well presently completed as
2 far as its production casing?

3 A It's presently -- there's 8-5/8ths set
4 at 498 feet and 4-1/2 inch set at 7300 feet.

5 Q So 4-1/2 inch casing goes down there and
6 that would almost be impossible to run a dual string.

7 And you said this production, the com-
8 bined production will be on pump.

9 A Yes, sir.

10 Q A beam type?

11 A A beam pump.

12 Q On the pressures in which you showed in
13 your exhibits here, I believe that was Exhibit Four, and
14 one, as it was pointed out to me, is from the No. 5 Well,
15 and you had a calculated BH -- bottom hole pressure of
16 2580.

17 How long has this well been producing
18 from the Bone Springs?

19 A Since --

20 Q The No. 5?

21 A The No. 5 was also drilled and completed
22 in 1981.

23 Q And has it been producing from just that
24 one zone, from the -- from the Bone Springs?

25 A Yes, sir.

1 Q Since '81? And the Bone Springs produc-
2 tion from your No. 4 Well, excuse me, from your No. 4 Well,
3 when did the Bone Springs production start on it?

4 A In 1981.

5 Q In 1981, so they're somewhere in the --

6 A Yes.

7 Q Okay.

8 MR. STOGNER: I have no other
9 questions of this witness.

10 Is there anything further of
11 Mr. Johnson?

12 He may be excused.

13 Ms. Aubrey, do you have any-
14 thing further in Case Number 9647?

15 MS. AUBREY: I have nothing
16 further, Mr. Stogner.

17 MR. STOGNER: Does anybody else
18 have anything?

19 This case will be taken under
20 advisement.

21

22 (Hearing concluded.)

23

24

25

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. 9647,
heard by me on 13 April 1989.

Michael E. Stignone, Examiner
Oil Conservation Division

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. 9647
ORDER NO. R-8918

APPLICATION OF PARKER & PARSLEY
PETROLEUM COMPANY FOR DOWNHOLE
COMMINGLING, EDDY COUNTY, NEW MEXICO

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on April 12, 1989, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 19th day of April, 1989, the Division Director, having considered the testimony, the record and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

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

(2) The applicant, Parker & Parsley Petroleum Company, is the owner and operator of the Pardue Farms "27" Btry. 1 Well No. 4, located 660 feet from the South and East lines (Unit P) of Section 27, Township 23 South, Range 28 East, NMPM, Eddy County, New Mexico.

(3) The applicant seeks authority to commingle oil production from the Undesignated East Loving-Delaware Pool and the South Culebra Bluff-Bone Spring Pool within the wellbore of the above-described well.

(4) From each of the zones the subject well is capable of low marginal production only.

(5) Evidence presented in this case indicates that the proposed commingling will result in the recovery of additional hydrocarbons from each of the subject pools, thereby preventing waste and will not violate correlative rights.

(6) The reservoir characteristics of each of the subject zones are such that underground waste would not be caused by the proposed commingling provided that the well is not shut-in for an extended period of time.

(7) To afford the Division the opportunity to assess the potential for waste and to expeditiously order the appropriate remedial action, the operator should notify the Artesia district office of the Division any time the subject well is shut-in for 7 consecutive days.

(8) Allocation of the commingled production from the subject well should be as follows:

<u>POOL</u>	<u>OIL</u>	<u>GAS</u>
Undesignated East Loving-Delaware	97%	92%
South Culebra Bluff-Bone Spring	3%	8%

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Parker & Parsley Petroleum Company, is hereby authorized to commingle oil production from the Undesignated East Loving-Delaware Pool and the South Culebra Bluff-Bone Spring Pool within the wellbore of its Pardue Farms "27" Btry. 1 Well No. 4, located 660 feet from the South and East lines (Unit P) of Section 27, Township 23 South, Range 28 East, NMPM, Eddy County, New Mexico.

(2) Allocation of the commingled production from the subject well shall be as follows:

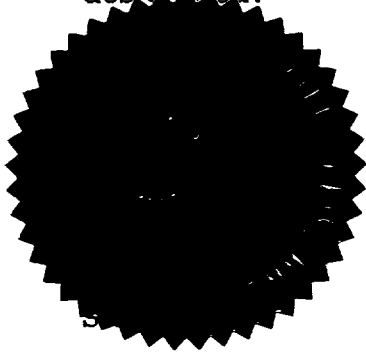
<u>POOL</u>	<u>OIL</u>	<u>GAS</u>
Undesignated East Loving-Delaware	97%	92%
South Culebra Bluff-Bone Spring	3%	8%

(3) The operator of the subject well shall immediately notify the Division's Artesia district office any time the well has been shut-in for seven consecutive days and shall concurrently present, to the Division, a plan for remedial action.

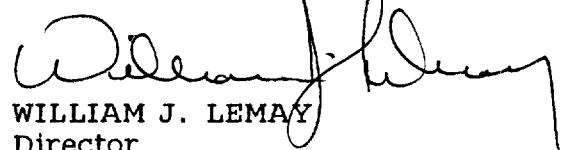
(4) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

Case No. 9647
Order No. R-8918
Page No. 3

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



STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


WILLIAM J. LEMAY
Director