

1 STATE OF NEW MEXICO
2 ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT
3 OIL CONSERVATION DIVISION
4 STATE LAND OFFICE BLDG.
5 SANTA FE, NEW MEXICO

6 21 October 1987

7 EXAMINER HEARING

8 IN THE MATTER OF:

9 The hearing called by the Oil Con- CASE
10 servation Division on its own motion 9237
11 for an order abolishing the Amanda
12 (Abo) Gas Pool, contracting the hor-
13 izontal limits of the Drinkard and
14 Wantz-Abo Pools, et cetera, all in
15 Lea County, New Mexico.

16 BEFORE: David R. Catanach, Examiner

17 TRANSCRIPT OF HEARING

18 A P P E A R A N C E S

19 For the Division:

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

25 For the Applicant:

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I N D E X

PAUL F. KAUTZ

Direct Examination by Mr. Taylor	4
Cross Examination by Mr. Catanach	27
Questions by Mr. Lyon	30

E X H I B I T S

Division Exhibit One, Data	8
Division Exhibit Two, Information	11
Division Exhibit Three, Letter	17
Division Exhibit Four, Cross Sections	19
A-A'	
A'-A''	
B-B'	
C-C'	
D-D'	

1
2 MR. CATANACH: Call next Case
3 9237, which is in the matter of the hearing called by the
4 Oil Conservation Division on its own motion for an order
5 abolishing the Amanda (Abo) Gas Pool, contracting the hori-
6 zontal limits of the Drinkard and Wantz-Abo Pools, extending
7 both the horizontal and vertical limits of the South Brun-
8 son-Abo Pool, to be redesignated the South Brunson Drinkard-
9 Abo Pool, and re-establishing vertical limits of the Drinkar
10 and Wantz-Abo Pools, all in Lea County, New Mexico.

11 Is there appearances in this
12 case?

13 MR. TAYLOR: May it please the
14 Examiner, I'm Jeff Taylor, Counsel for the Division, and we
15 have one witness to be sworn.

16 MR. CATANACH: Are there any
17 other appearances in this case?

18 Will the witness please stand
19 and be sworn in?

20

21 (Witness sworn.)

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PAUL F. KAUTZ,

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

DIRECT EXAMINATION

BY MR. TAYLOR:

Q Would you please state your name,
position, and place of residence?

A My name is Paul Kautz and I'm employed by
the New Mexico Oil Conservation Division in its Hobbs Office
as the District Geologist.

Q And how long have you held this position,
Mr. Kautz?

A Oh, approximately 6-1/2 years.

Q Have you previously testified before the
Commission or its examiners and had your credentials
accepted as a matter of record?

A Yes, I have.

Q Does the Hobbs District include that part
of Lea County involved in this case?

A Yes, it does.

Q And do your duties as District Geologist
include the matters covered by this case?

A Yes, it does.

1 MR. TAYLOR: Mr. Examiner, I
2 tender the witness as an expert.

3 MR. CATANACH: He is so
4 qualified.

5 Q Would you please state the purpose of
6 this case?

7 A The purpose of this case is to correct a
8 problem with wells perforated out of zone and across forma-
9 tion boundaries in the Drinkard, Wantz-Abo, and South Brun-
10 son Abo Pools.

11 These wells are in a later state of de-
12 pletion and it would be uneconomical to require operators to
13 squeeze perforations which are out of zone; therefor, to
14 correct this problem the Division seeks the abolishment of
15 the Amanda Gas Pool, contraction of the horizontal limits of
16 the Drinkard and Wantz-Abo Pools, and the extension of both
17 the horizontal and vertical limits of the South Brunson Abo
18 Pool and to redesignate the South Brunson Abo Pool as the
19 South Brunson Drinkard-Abo Pool, and to re-establish the ver-
20 tical limits of the Drinkard and the Wantz-Abo Pools.

21 The Division further seeks the promulga-
22 tion of special pool rules and the redesignation of the
23 South Brunson Drinkard Abo Pool including a limiting gas/oil
24 ratio of 6000 cubic feet of gas per barrel of liquid hydro-
25 carbons, and the adoption of a method to determine the al-

1 lowable for proration units where different operators may
2 separately control the Drinkard and Abo zones.

3 Also, we seek the adoption of a procedure
4 whereby Drinkard and Wantz-Abo, and South Brunson Drinkard-
5 Abo wells with short intervals of perforations out of zone
6 could be approved.

7 Q Mr. Kautz, could you describe to the
8 Examiner how you learned about the problems in this area?

9 A Over the past several years there have
10 been several indications that a problem existed in this
11 area. The main indication that there was a problem in this
12 area occurred when Chevron recompleted its Ella No. 1 Well
13 in Unit letter A of Section 25, Township 22 South, Range 37
14 East in the Abo formation.

15 This well was completed approximately in
16 October of 1986.

17 This well had a high GOR of 24,761-to-1,
18 and is within one mile of the South Brunson Abo Pool and
19 would fall under its pool rules. The South Brunson Abo Pool
20 has a limiting GOR of 2000-to-1 and the well is a little
21 more than one mile from the Wantz-Abo Pool, which has a GOR
22 limit of 6000-to-1.

23 And several operators are planning recom-
24 pletions in this area and Chevron showed us a map that with-
25 in one mile of its Ella No. 1 Well that there were approxi-

1 mately 15 wells incorrectly classified as Drinkard wells
2 producing from this same interval that the Ella No. 1 was
3 perforated.

4 The Drinkard Pool has a GOR limit of
5 6000-to-1 and Chevron's contention is that it should be al-
6 lowed to develop its wells under the same 6000-to-1 GOR lim-
7 it.

8 Q After you learned of the problems in
9 these pools, did you conduct your own study and prepare any
10 exhibits?

11 A Yes, I did.

12 Q Would you describe how you went about
13 conducting this study and the results?

14 A I conducted the study of the Drinkard and
15 Wantz-Abo and South Brunson Abo Area during the last part of
16 1986. This study consisted of two phases, a preliminary
17 study and a more detailed study.

18 The preliminary study was conducted in
19 order to establish whether or not this was a problem
20 restricted to one small area and this preliminary study in-
21 dicated that it was not limited to a small area.

22 Therefor, I conducted a more detailed
23 study which consisted of picking the formation tops for the
24 Tubb, Drinkard, and the Abo formations from electric logs
25 and searching the well files for perforated intervals and

1 determine the history of development for these pools.

2 The study indicated that there are appro-
3 ximately 195 wells out of zone in the three pools, and Exhi-
4 bit One contains the data for these wells.

5 Exhibit One groups the data in various
6 ways.

7 Table 1 lists the Drinkard Pool wells out
8 of zone by location and that's on pages one through four.

9 Table 2 lists the same Drinkard Pool
10 wells out of zone by operator on pages five through eight.

11 Table 3 is for the South Brunson Abo Pool
12 wells out of zone and that's on page 9.

13 And Table 4 lists the Wantz-Abo Pool
14 wells that are out of zone. That's on page 10.

15 The Drinkard wells which are out of zone
16 are classified by the remaining tables.

17 Table 5 lists the Drinkard classified
18 wells producing from the Tubb, Drinkard, and Abo formations.
19 Correct there.

20 Table 5 is the Drinkard classified wells
21 producing from the Tubb and Drinkard on page 11.

22 Table 6 contains the Drinkard classified
23 wells producing from the Tubb, Drinkard, and Abo formations
24 on page 12.

25 Table 7 lists Drinkard classified wells

1 producing from the Tubb on page 13.

2 And Table 8 is the Drinkard classified
3 wells producing from the Abo on page 14.

4 And Table 9 are the Drinkard classified
5 wells producing from the Drinkard and Abo formations.

6 I'd like to explain what each column
7 means in these tables.

8 The first column is just a column for the
9 operator.

10 The second column is a lease.

11 Third one is the well number.

12 Then the unit letter, section, township,
13 and range.

14 And then the first set of perfs listed,
15 are the abandoned perfs that have been classified as Drink-
16 ard. The next set of perfs are currently open perfs that
17 are classified as Drinkard.

18 The next column lists the GOR for these
19 wells.

20 After that, the next column indicates the
21 datum point for the electric logs, and then we have the
22 measured depth to the Tubb, measured depth to the Drinkard,
23 measured depths to the Abo.

24 And the next three columns list the sub-
25 sea data for the Tubb, Drinkard, and Abo.

1 After that is the status of the well. P
2 stands for producing. SI stands for shut-in. And ING --
3 INJ stands for injection well.

4 Then the next three columns is just a
5 graphic display showing which formations they're producing
6 from. The X indicates the formations that it's producing
7 from and the O is the formations it's not producing from.

8 Then the remaining two columns, the first
9 one is the vertical distance into the Abo formation that the
10 perms go into and then the last column is the vertical dis-
11 tance the perms go into the Tubb formation.

12 And these columns are basically the same
13 on all the tables except for Table 4, where the graphic dis-
14 play only shows for the Drinkard and Abo formation and the
15 vertical distance out of zone only indicates vertical dis-
16 tance into the Drinkard formation.

17 To summarize these results, the study in-
18 dicated that there's a total of 887 currently producing
19 wells in these three pools with 723 wells producing from the
20 Drinkard, 141 from the Wantz-Abo, and 10 wells in the South
21 Brunson Abo.

22 With 195 wells producing out of zone or
23 across formation boundaries, 44 wells are within 35 feet of
24 being within zone. So in the area around the City of
25 Eunice, New Mexico, the Drinkard Pool overlies the Wantz-Abo
and South Brunson Abo and the study indicates that a problem

1 does exist and this problem began in the last 1950s. These
2 pools not only overlie each other but overlap each other
3 vertically, as can be seen in Exhibit One.

4 Q Would you explain, please explain what
5 Exhibit Two, Part A, shows?

6 A Exhibit 2, Part A, is a plat showing
7 wells which are more than 35 feet out of zone.

8 The open circle indicates wells producing
9 from the Abo that are classified as Drinkard.

10 The solid black circle indicates wells
11 classified as Drinkard producing from both the Drinkard and
12 the Abo formation.

13 The open square indicates Drinkard clas-
14 sified wells producing from the Tubb and Drinkard.

15 And the open triangle symbol indicates
16 Drinkard classified wells producing from the Tubb, Drinkard,
17 and Abo formations.

18 Each one of these wells are wells that
19 extend more than 35 feet out of zone.

20 Q Where are most of these wells located?

21 A Approximately 80 percent of the wells
22 which cross formation boundaries, or out of zone, are lo-
23 cated south and southeast of the Town of Eunice. Generally
24 speaking, the pools are in good shape with the exception of
25 this southeast area.

1 Q Did your study indicate any other prob-
2 lems created by these wells being out of zone?

3 A Another problem occurs with the GOR lim-
4 its of the various pools. The Drinkard, Wantz-Abo Pools
5 have a GOR limit of 6000 and the South Brunson Abo has a GOR
6 limit of 2000, and as indicated on Exhibit One, the majority
7 of the wells producing from the Abo and Drinkard formations
8 have high GORs.

9 An operator planning to recomplete a well
10 in the Abo formation within one mile of the South Brunson
11 Abo Pool would fall under its pool rules, and this well
12 would be limited by the GOR ratio of 2000-to-1, and this
13 would not allow the operator to develop his well at the same
14 GOR limit as the other operators have in the past, as we can
15 see on Exhibit Two, Part A, and this would not be protecting
16 correlative rights of the operators.

17 Q Would you briefly describe the history of
18 the development of these pools?

19 A The history of development of these pools
20 might indicate why some of these wells are out of zone, or
21 does indicate why these wells are out of zone.

22 The Drinkard pool was discovered in 1944.
23 The discovery was Gulf Vivian No. 1, which is approximately
24 5-1/2 miles southeast of Eunice.

25 The Gulf well perforated the Drinkard and

1 produced from what became known as the Drinkard Vivian pay
2 zone.

3 And then in 1945 Gulf Andrews No. 1 Well
4 perforated the upper part of the Abo formation and this be-
5 came known as the Drinkard Andrews pay zone. This was be-
6 fore our current procedures on defined nomenclature. Under
7 our current procedures we would give a geographical name,
8 let's say, for example, it would be like Eunice, and the Vi-
9 vian Number One Well would have been assigned to the Eunice
10 Drinkard Pool and Gulf's second well would have been as-
11 signed to, let's say, an example would be Eunice Abo Pool.

12 But this was before our current nomencla-
13 ture procedures.

14 These pay zones were kept separate for
15 production purposes until 1958. So consequently the Drink-
16 ard Pool was developed with two separate pay zones, the
17 Drinkard and the upper 200 feet of the Abo.

18 Then in 1948 the North Drinkard Pool, 5
19 miles north of Eunice, was discovered and developed from one
20 pay zone and this pay zone is equivalent to the Vivian pay
21 in the Drinkard Pool.

22 And then in the early 1950s oil was dis-
23 covered in the Abo formation 3-1/2 miles north of Eunice.
24 The Wantz-Abo Pool was created for this pay zone and the
25 main Wantz-Abo pay zone is equivalent to the Drinkard An-

1 draws pay zone.

2 The Drinkard Pool developed much faster
3 than the North Drinkard Pool and in the early 1950s these
4 pools were combined. So that left us, in the north of Eu-
5 nice we had the Drinkard Vivian pay separate from the Wantz-
6 Abo, and in the south the Drinkard Vivian pay separated from
7 the Drinkard Andrews pay.

8 This problem grew worse in the late 1950s
9 when for some reason the Drinkard Vivian and Andrews pay
10 were combined.

11 This problem was further complicated when
12 some operators in the southern area started perforating the
13 entire Abo while at the same time other operators were doing
14 the same from which the South Brunson Abo Pool was created.

15 And a type log for this area was not de-
16 signated until the mid-1950s. That type log was Humble Oil
17 and Refinery State S No. 20. This type log only designated
18 the top of the Blinebry, Tubb, and its base, 225 feet below
19 the Tubb marker.

20 In 1973 the base of the Tubb was lowered
21 to the commonly used top of the Drinkard with the Drinkard
22 defined at a depth of 6250.

23 This depth of 6250 on State S No. 20, I
24 did not use for my study. They used an old electric log
25 which was not correlative to other wells in these pools.

1 After doing the study I picked a marker
2 that was correlative all the way across these pools and that
3 marker was approximately 10 feet above the marker used --
4 defined in 1973.

5 And there is no type log defined for the
6 Abo formation.

7 Q Do you know the location of the State S-
8 20?

9 A Just a minute and I can find it here. I
10 don't know what unit letter it's in but I believe it's in
11 Section 2 of 22 South, Range 37 east.

12 Q Okay. What action did you take after
13 completing your study?

14 A We sent letters to all operators in the
15 three pools. The letters stated that the OCD would be
16 convening a nomenclature meeting on May 5th, 1987. The
17 letter briefly stated that -- what the problem was and con-
18 tained a list of each operator's wells which the OCD be-
19 lieved to be perforated across pool boundaries or not in the
20 proper pools was enclosed, and all operators were encouraged
21 to attend.

22 Q What happened at the meeting?

23 A At the meeting I presented the problem,
24 along with copies of Exhibit One were given to each operator
25 in attendance.

1 I also presented three possible solutions
2 to these problems.

3 Solution one was to grandfather in all
4 195 wells which are out of zone; change the GOR limit to
5 6000-to-1 for all three pools; and establish type cross
6 sections to be used for future wells.

7 Solution two was to contract certain
8 areas of the Wantz-Abo and Drinkard Pools; extend the South
9 Brunson Abo to include those areas contracted and extend the
10 vertical limits of the South Brunson to include the Drinkard
11 and Abo formations, and change the GOR limit for the South
12 Brunston to 6000-to-1, and then grandfather in the remaining
13 wells which are more than 35 feet out of zone, and finally,
14 establish type cross sections to be used for future wells.

15 And then Solution three was to form an
16 industry committee.

17 At the meeting we requested the operators
18 to evaluate the solutions and return a survey sheet marking
19 the solution they preferred and to list any recommendations
20 and comments they might have.

21 Any operator who was not in attendnace a
22 this meeting was sent a letter describing what was discussed
23 at the meeting and we also asked them to review it and to
24 return the survey to us.

25 Based on the survey it was decided to

1 make a slight modification to Solution Number Two.

2 The revised Solution Number Two was draf-
3 ted up the way we would present it at this hearing and on
4 August 13th, 1987, all operators were notified by letter
5 that there would be a second meeting on September 16th,
6 1987.

7 The letter contained the proposed rule
8 changes and informed operators how they could review the
9 cross sections and obtain copies of these cross sections.

10 At the second meeting there was no objec-
11 tions to the proposed cross sections and proposed rule chan-
12 ges.

13 Also it was decided to schedule it for
14 hearing at the first available docket.

15 Q Did -- did you notify all operators by
16 letter of the hearing?

17 A Yes. Exhibit Three is a copy of the let-
18 ter mailed to all operators in the Drinkard, Wantz-Abo, and
19 South Brunson Abo Pools.

20 However, this last Monday we discovered
21 that Hanson Operating did not receive any correspondence in
22 relation to the meetings or this hearing because we had the
23 wrong address for them. I phoned them Monday morning and I
24 talked ot a David Sweeney, explained the -- what had gone on
25 at the meetings, explained how this hearing would affect

1 their four wells, and they stated -- he stated to me that he
2 had no objections to it but he would like to receive all
3 copies of all correspondence sent, and Monday we mailed out
4 to him copies of all correspondence concerning this area.

5 Q Okay, Mr. Kautz, as a result of the
6 studies you did and the meetings you had with the operators
7 in these pools, what changes are you now proposing in the
8 pool nomenclature?

9 A Okay. We are proposing that the Amanda
10 Gas Pool, which is abandoned, be abolished. The are to be
11 abolished is shown on Exhibit Two, Part B, in blue. This
12 pool produced from the Abo formation and the acreage is to
13 be included in the new South Brunson Drinkard-Abo Pool.

14 Exhibit Two, Part C, shows the acreage
15 that will be deleted from the Drinkard Pool. The red color
16 is the present pool boundaries of the Drinkard pool with the
17 blue indicating the area to be deleted from the Drinkard
18 Pool, and this deleted acreage is to be included in the
19 South Brunson Drinkard-Abo Pool.

20 Exhibit Two, Part D, shows the acreage
21 that will be deleted from the Wantz-Abo Pool. The area
22 outlined in red is the present pool boundaries, with the
23 area outlined in blue, the area to be deleted from the
24 Wantz-Abo Pool, and this acreage that is deleted will be
25 included in the South Brunson Drinkard-Abo Pool.

1 Exhibit Two, Part E, shows the proposed
2 pool extension in green for the South Brunson Abo Pool.

3 In addition, we request that the vertical
4 limits of the South Brunson Abo Pool be extended to include
5 the Drinkard formation; also request that you redesignate
6 this pool as the South Brunson Drinkard-Abo Pool.

7 The proposed horizontal extension will
8 include acreage deleted from the Wants-Abo and Drinkard
9 Pools, plus the acreage removed from the abolished Amanda
10 Gas Pool.

11 Q Why extend the vertical limits of the
12 South Brunson Abo Pool to include the Drinkard?

13 A If we look back at Exhibit Two, Part A,
14 we notice that approximately 80 percent of the wells which
15 are out of zone are within the boundary of the redesignated
16 South Brunson Drinkard-Abo Pool.

17 The majority of these wells are classi-
18 fied as Drinkard and are either producing from the Abo or
19 Drinkard and Abo formations, and this appears to be the sim-
20 plest way to correct this situation.

21 Q Would you now refer to Exhibit Four and
22 the parts thereof and describe what they are?

23 A Exhibit Four is a set of five cross sec-
24 tions: Cross Section A-A' and A'-A" is Part A of Exhibit
25 Four. Part B is cross sections B-B' and Part C is cross

1 section C-C'. All sections are through the Drinkard and
2 Wantz-Abo Pools.

3 And these cross sections show the top of
4 the Tubb, Drinkard, and Abo formations. In addition, it
5 shows the base of the Abo formation.

6 In Exhibit Two, Part F, shows the
7 location of these cross sections.

8 Cross section A-A' and a continuation of
9 this, A'-A", is generally a north/south trending cross
10 section.

11 Cross section B-B' is generally an
12 east/west cross section across the northern part of the
13 area, and cross section C-C' is an east/west cross section
14 across the southern part of the area.

15 And cross section D-D' on Exhibit Four,
16 Part D, is generally a north/south trending cross section
17 through the South Brunson Drinkard-Abo Pool. This cross
18 section shows the top of the Tubb and Drinkard formations
19 and the base of the Abo formation.

20 The top of the Abo formation is not shown
21 on this cross section since this is within the vertical
22 limits of the proposed redesignation of the pool.

23 Q Mr. Kautz, would you just point out for
24 us on the cross sections the various tops of formations that
25 you want to designate by these?

1 A On cross section A'-A", Well A-7 on this
2 cross section is the Humble Oil Refinery New Mexico State S
3 No. 24 Well, located in Unit J, Section 2, Township 22
4 South, Range 37 east.

5 The top of the Tubb is at 5917; top of
6 the Drinkard is at 6223; and top of the Abo is at 6505; with
7 the base of the Abo being at 7324.

8 Q Thank you. What are the additional spe-
9 cial pool rules that you're requesting for the -- yeah,
10 that's right, what are the additional special pool rules you
11 are requesting for the Drinkard Pool?

12 A Exhibit Two, Part G, lists these rules.
13 They are, one, designate cross section A-A', A'-A", B-B',
14 and C-C' as type cross sections for the Drinkard Pool and
15 require all future completions and recompletions of wells
16 must conform to these type cross sections.

17 This rule is added to help prevent other
18 wells from being completed out of zone. There are probably
19 many reasons why these wells are out of zone but one contri-
20 buting factor is the long distance from the discovery well
21 to a type log -- or to the discovery well or a type log.

22 In addition, operators tend to look at
23 where offset wells have perforated.

24 By having a type cross section, long dis-
25 tance correlations will be less of a factor.

1 The next rule, Order 4635 granted
2 approval to Drinkard wells perforated not more than 35 feet
3 upward into the lowermost portion of the Tubb Gas pool.

4 Well, we would like to revise this to
5 include perforations not more than 35 feet downward into the
6 uppermost portion of the Wantz-Abo Pool.

7 Exhibit Two, Part J, List 1, lists these
8 wells.

9 The third additional rule is over the
10 years several of the wells have been perforated more than 35
11 feet out of zone and it would be uneconomical to require
12 that these zones be squeezed, so we're requesting exception
13 will be granted -- that exceptions will be granted to these
14 wells listed in Exhibit Two, Part J, List 2.

15 The operator of -- further we request
16 that in the event that we left any wells off these lists,
17 we're providing a method whereby an operator can apply for
18 an exception and the operators of any wells which may be out
19 of zone in accordance with the type cross sections and omit-
20 ted from Lists 1 or 2, shall have 60 days to apply for an
21 exception to the vertical limits from the Hobbs District of-
22 fice.

23 To obtain such a letter of approval the
24 operator of a well shall request same in writing and a copy
25 of the request shall be furnished to the offset operators of

1 the subject well and the District Supervisor, in the absence
2 of objection, and if he deems same prudent, may issue the
3 letter of approval; other wise the matter would be set for
4 hearing if the applicant so requests.

5 Q What are the additional special pool
6 rules that you're requesting for the Wantz-Abo Pool?

7 A One, designate cross sections A'-A', A'-
8 A", B-B', and C-C' as type cross sections for the Wantz-Abo
9 Pool.

10 Two, grant approval of Wantz-Abo wells
11 with perforations no more than 35 feet upward into te lower-
12 most portion of the Drinkard Pool. These wells are listed
13 on List 3 in Exhibit 2, Part J, and all future completions
14 will be required to comply with the formation tops defined
15 on the type cross sections.

16 And three, that the operators of any well
17 which may be out of zone in accordance with type cross sec-
18 tions and omitted from List 3, shall have 60 days to apply
19 for an exception to the vertical limits in the Hobbs Dis-
20 trict office, and to obtain such letter of approval the
21 operator of a well shall request same in writing and a copy
22 of the request shall be furnished to the offset operators of
23 the subject well and the District Supervisor, in the absence
24 of objection and if he deems same prudent, may issue the
25 letter of approval, otherwise, the matter will be set for

1 hearing if the applicant so requests.

2 Q Now, what are the special rules that you
3 are requesting for the South Brunson Drinkard-Abo Pool?

4 A Okay, Exhibit Two, Part I, lists these
5 rules and they are, one, designate cross section D-D' as the
6 type cross section for the South Brunson Drinkard-Abo Pool
7 and require all future completions and recompletions comply
8 with the type cross section.

9 Again, Order 4635 granted approval to
10 Drinkard wells with perforations not more than 35 feet up-
11 ward into the lowermost portion of the Tubb Gas Pool.
12 Therefore, the wells listed on List 4 of Exhibit Two, Part J,
13 should be granted exceptions.

14 There are three wells perforated more
15 than 35 feet into the Tubb Gas Pool. It would be uneconomical
16 to require that these zones be squeezed and we're re-
17 questing an exception be granted for these wells listed in
18 List 5 of Exhibit Two, Part J.

19 And we have the same provision as we have
20 in the other pool rules, that operators of any well which
21 may be out of zone in accordance with the type cross sec-
22 tions and omitted from List 4 or 5 shall have 60 days to
23 apply for an exception to the vertical limits from the Hobbs
24 District office, and to obtain such letter of approval the
25 operator of the well shall request same in writing. A copy

1 of the request shall be furnished to the offset operators to
2 the subject well and the District Supervisor in the absence
3 of objection and if he deems same prudent, may issue the
4 letter of approval, otherwise, the matter will be set for
5 hearing if the applicant so requests.

6 Fourth, will be establish a GOR limit of
7 6000-to-1 for the South Brunson Drinkard-Abo Pool. This is
8 the same GOR limit currently in effect for the Drinkard and
9 Wantz-Abo Pools and the same GOR that has -- many of the
10 wells have been producing at.

11 Five, would be a formula for allowable
12 determination and this allowable determination be used in
13 the event that different operators may have the rights to
14 the Drinkard and Abo formations within the same proration
15 unit.

16 The allowable will be determined based on
17 the following:

18 A. If the combined production total of
19 both wells exceeds the top allowable, the allowable for each
20 well will be determined based on a percentage. The percent-
21 age allowable formulas are, the allowable for the Drinkard
22 formation would be $142 \times (A) \text{ over } A + B$, where A is the
23 amount produced from the Drinkard formation during the an-
24 nual 24-hour test and B is the amount produced from the Abo
25 formation during the annual 24-hour test.

1 The allowable for the Abo formation would
2 be $142 \times (B) \text{ over } A + B$.

3 And then after the percent allowable is
4 determined, any limit based on GOR would be applied.

5 Since the wells are in a later stage of
6 depletion, it is very unlikely that any wells would fall un-
7 der this -- this formula.

8 And B, if the combined production total
9 of both wells is equal to or less than the top allowable,
10 the allowable will be based on the number of barrels pro-
11 duced during a 24-hour test minus any limit, if applicable,
12 based on GOR.

13 The results of the GOR test will be used
14 for the annual 24-hour oil production tests. The operator
15 having the right to the other zone shall have the right to
16 witness these tests.

17 A change in allowable may be requested by
18 submitting a new C-116 to the Hobbs District office. The
19 other operator shall be notified prior to testing and shall
20 have the right to witness the test.

21 I might add that as of right now there is
22 no situation where this allowable formula would be used.
23 There is no -- at this time there are no situations where
24 two operators have the rights to the Drinkard and the Abo
25 Pools.

1 Q At least where there's an existing well,
2 right?

3 A Right, there are existing wells but it's
4 only producing from the one formation at this time.

5 Q Mr. Kautz, would adoption of your propo-
6 sal to redesignate these pools and the propose special pool
7 rules prevent waste and protect correlative rights?

8 A Yes, it would.

9 Q And were Exhibits One through Four and
10 all the subparts thereof prepared by you or under your
11 supervision and control?

12 A Yes, they were.

13 MR. TAYLOR: Mr. Examiner, I
14 move the admission of Exhibits One through Four.

15 MR. CATANACH: Exhibits One
16 through Four will be admitted into evidence.

17 MR. TAYLOR: And that's all we
18 have in this case.

19

20 CROSS EXAMINATION

21 BY MR. CATANACH:

22 Q Mr. Kautz, there's, it looks to me like
23 Part A of your Exhibit Two, I think, there's some wells that
24 are -- that have the same problem that are located outside
25 of the proposed new pool, is that right?

1 A Yes.

2 Q Now we don't intend to do anything about
3 those wells?

4 A Those -- those wells are listed on the
5 exceptions in Exhibit Two, Part J.

6 Q Okay, for those wells we're going to
7 change the Drinkard rules, or you propose to change the
8 Drinkard rules to allow the exception.

9 A Yes.

10 Q Okay, and there's also wells in the
11 Wantz-Abo that are -- have the same kind of problem, is that
12 correct?

13 A Yes. They are listed on Exhibit Two,
14 Part J, List No. 3, on page 3.

15 Q Okay.

16 A And there's a total of six wells there.

17 Q Does the Wantz-Abo Pool have special
18 rules, Mr. Kautz, do you know?

19 A Yes. It has a special pool rule of 6000-
20 to-1 GOR.

21 Q Do you know what that order number was?

22 A No, I don't.

23 Q Would the allowable for the new pool be
24 under 42 barrels a day?

25 A That's top allowable.

1 Q What's the allowable for the Drinkard?

2 A The Drinkard formation is 142 barrels a
3 day.

4 Q And the Abo, Wantz-Abo?

5 A Wants-Abo is the next depth bracket lower
6 than the Drinkard and I don't know what it is at this time,
7 but the --

8 Q Slightly higher, isn't it?

9 A Slightly higher. The operators in that
10 area to be deleted from the Wantz-Abo, the main operator is
11 Chevron and they have no objections to receiving a lower
12 allowable.

13 There's no wells in this area that are
14 currently producing top allowable.

15 Q How close to they get to it, do you
16 think? I mean are there wells that almost make top
17 allowables?

18 A No.

19 Q Okay, that formula will only be used in
20 the, say, for example, a new well --

21 A Yes.

22 Q -- that could produce top allowable. So
23 the -- what the operator would have to do would be to test
24 the Drinkard and the Abo separately, is that correct?

25 A That's correct.

1 Q You also proposed that the operators can
2 get exceptions to the Abo and the Drinkard rules by applying
3 to the District Supervisor, is that correct?

4 A Yes.

5 Q Is there any time frame that you would
6 recommend that the District Supervisor would wait before
7 approving something like that? Would 20 days be in line?

8 A Yes, 20 days.

9 Q I think that's all the questions I have.
10 Are there any other questions of this witness?

11 MR. LYON: I'd like to ask a
12 couple.

13 MR. CATANACH: Mr. Lyon.

14
15 QUESTIONS BY MR. LYON:

16 Q Victor Lyon, Chief Engineer for the Oil
17 Conservation Division.

18 Mr. Kautz, you mentioned the
19 circumstances where there might be two people having the
20 right to drill in this new pool, North Brunson Abo-Drinkard.
21 Would you describe in what circumstances might occur?

22 A That might occur where a -- one operator
23 might have the rights down to a particular depth and another
24 operator had the rights below that particular depth.

25 Q And prior to the formation of this pool

1 there would be nothing to impair those operators from
2 drilling to their respective depths to which they had the
3 rights to drill.

4 A That is correct.

5 Q In view of the fact that we're changing
6 the pooling, do you think that it might be possible for
7 those operators to pool their interests in there since it
8 really is equivalent to having separate acreage ownership in
9 the same proration unit?

10 A That's possible.

11 Q And if they were unable to agree, do you
12 think it -- the Commission would be -- or the Division would
13 be impowered to compulsorily pool those interests?

14 A Yes.

15 Q So that would be an alternative to -- to
16 the formula that you're --

17 A Yes, that would be an alternative.

18 Q That's all I have.

19 MR. CATANACH: Are there any
20 other questions of this witness? If not, he may be excused.

21 Is there anything further in
22 Case 9237?

23 If not, it will be taken under
24 advisement.

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. 9237, heard by me on October 21, 1987.

David R. Catenach, Examiner
Oil Conservation Division