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. 11,783

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APPLICATION OF PENWELL ENERGY, INC., FOR COMPULSORY POOLING, EDDY COUNTY, NEW MEXICO

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REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: DAVID R. CATANACH, Hearing Examiner

May 15th, 1997

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, DAVID R. CATANACH, Hearing Examiner, on Thursday, May 15th, 1997, at the New Mexico Energy, Minerals and Natural Resources Department, Porter Hall, 2040 South Pacheco, Santa Fe, New Mexico, Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

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INDEX May 15th, 1997 Examiner Hearing CASE NO. 11,783 PAGE APPEARANCES 3 **APPLICANT'S WITNESSES:** MARK WHEELER (Landman) Direct Examination by Mr. Owen 4 Examination by Examiner Catanach 9 JOHN THOMA (Geologist) Direct Examination by Mr. Owen 11 Examination by Examiner Catanach 17 **REPORTER'S CERTIFICATE** 20 * * * EXHIBITS Applicant's Identified Admitted Exhibit 1 6 9 Exhibit 2 7 9 Exhibit 3 8 9 Exhibit 4 8 9 Exhibit 5 12 17 Exhibit 6 15 17 * * *

APPEARANCES

FOR THE DIVISION:

RAND L. CARROLL Attorney at Law Legal Counsel to the Division 2040 South Pacheco Santa Fe, New Mexico 87505

FOR THE APPLICANT and TEXACO EXPLORATION AND PRODUCTION, INC:

CAMPBELL, CARR, BERGE and SHERIDAN P.A. Suite 1 - 110 N. Guadalupe P.O. Box 2208 Santa Fe, New Mexico 87504-2208 By: PAUL R. OWEN

* * *

WHEREUPON, the following proceedings were had at 1 2 11:40 a.m.: 3 EXAMINER CATANACH: Okay, at this time we'll call Case 11,783. 4 5 MR. CARROLL: Application of Penwell Energy, 6 Inc., for compulsory pooling, Eddy County, New Mexico. 7 EXAMINER CATANACH: Appearances in this case? MR. OWEN: Paul Owen with the Santa Fe law firm 8 9 of Campbell, Carr, Berge and Sheridan, on behalf of Penwell Energy, Inc. I have two witnesses in this case. 10 EXAMINER CATANACH: Additional appearances? 11 Will the two witnesses please stand and be sworn 12 in at this time? 13 (Thereupon, the witnesses were sworn.) 14 MR. OWEN: The first witness in this case is Mr. 15 Mark Wheeler. 16 17 Mr. Examiner, if it please the Examiner, I'm also entering an appearance for Texaco in this case. 18 19 EXAMINER CATANACH: Okay. 20 MARK WHEELER, the witness herein, after having been first duly sworn upon 21 22 his oath, was examined and testified as follows: DIRECT EXAMINATION 23 BY MR. OWEN: 24 25 Mr. Wheeler, please state your full name and Q.

place of residence. 1 2 Α. Mark Wheeler, Midland, Texas. 3 Q. By whom are you employed? Penwell Energy, Incorporated. 4 Α. And what do you do for Penwell? 5 Q. 6 Α. Land manager. 7 Q. Have you previously testified before the Division 8 or one of its Examiners, had your credentials accepted and made a matter of record? 9 10 Α. Yes, I have. 11 Q. Are you familiar with the Application filed in 12 this case? 13 Α. Yes, I am. 14 0. Are you familiar with the subject area? 15 Α. Yes, sir. 16 MR. OWEN: Mr. Examiner, are the witness's 17 qualifications acceptable? 18 EXAMINER CATANACH: They are. 0. (By Mr. Owen) Mr. Wheeler, could you please 19 20 briefly state what Penwell seeks with this Application? 21 Α. Penwell seeks an order pooling all mineral 22 interests in the following spacing units in Section 32 of Township 23 South, Range 29 East, Eddy County New Mexico: 23 The north half for pools developed on 320-acre spacing, the 24 25 northwest quarter for pools developed on 160-acre spacing,

1	the north half, northwest quarter for pools on 80-acre
2	spacing, and the northeast, northwest quarter for pools on
3	40-acre spacing.
4	Q. Which well will this be dedicated to?
5	A. The Penwell Energy Cochiti 32 State Com Number 1
6	well.
7	Q. What's the location of that well?
8	A. That well is to be drilled at 660 feet from the
9	north line and 1650 feet from the west line of Section 32.
10	Q. That is a standard location?
11	A. Yes, it is.
12	Q. Have you prepared exhibits for introduction in
13	this case?
14	A. Yes, sir, I have.
15	Q. Let's go to Penwell Exhibit Number 1, a land map.
16	Would you please review that for the Examiner.
17	A. This is a land plat of Section 32 and surrounding
18	sections. It shows the proposed north-half proration unit
19	for this well and the location of our Cochiti 32 State Com
20	Number 1 well.
21	Q. What's the primary objective of the proposed
22	well?
23	A. Atoka-Morrow.
24	Q. And what percentage of the acreage is voluntarily
25	committed?

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1	A. 75 percent.
2	Q. Let's go to Exhibit Number 2, which consists of
3	the same AFE, and it's executed by three different
4	companies.
5	A. It's actually been executed by Penwell Energy and
6	CoEnergy Central Exploration, who own the 75 percent that
7	are committed. The other 25 percent is owned by Texaco,
8	and they have not yet voluntarily committed.
9	Q. What's the total for a completed well?
10	A. Completed well is \$1,926,595.
11	Q. And for a dry hole?
12	A. \$1,445,000.
13	Q. Are these costs in line with what's been charged
14	by other operators in the area for similar wells?
15	A. Yes, sir, they are.
16	Q. What efforts have you made to obtain the
17	voluntary joinder of Texaco or any other working interest
18	and mineral interest owners?
19	A. We originally contacted Texaco in late February
20	of 1997, sent them a proposed operating agreement and our
21	AFE for this well. I've been in contact on the telephone
22	with representatives of Texaco since that time, but to date
23	we have been unable to obtain their joinder.
24	Q. Is Texaco the only party that's declined to join
25	that has an interest in this well?

1	A. Yes, sir.
2	Q. In your opinion, have you made a good faith
3	effort to obtain Texaco's voluntary joinder?
4	A. Yes, sir, we have.
5	Q. Have you drilled other Morrow wells in the
6	immediate area?
7	A. We have drilled other Morrow wells. I believe
8	the closest Morrow well to this particular location that we
9	drilled is probably 10 to 12 miles away.
10	Q. Is Exhibit Number 3 a letter reflecting intent to
11	obtain voluntary joinder from Texaco?
12	A. Yes, sir, it is.
13	Q. And is Exhibit Number 4 an affidavit and letters
14	giving notice of this hearing to Texaco?
15	A. Yes.
16	Q. Have you made an estimate of the overhead and
17	administrative cost while drilling this well and also while
18	producing it, if it is a successful well?
19	A. Yes, sir, we have. The drilling well rate is
20	\$6067 per month, the producing rate \$568 per month.
21	Q. Are these costs in line with what's being charged
22	by other operators in the area?
23	A. Yes, sir, we obtained these costs through the
24	Ernst and Young accounting manual.
25	Q. Do you recommend that these figures be

Incorporated into any order that results from this hearing? Α. Yes, sir, we do. 2 3 Q. Do you seek to be designated operator of the proposed well? 4 5 Α. Yes, sir. When do you seek to -- or propose to drill? 6 0. Within the next 60 to 90 days. 7 Α. Do you request that the order in this case be 8 Q. expedited? 9 A. Yes, sir. 10 Will Penwell call a geological witness to review 11 Q. the risk associated with this project? 12 13 Α. Yes, sir, we will. Mr. Wheeler, were Exhibits 1 through 4 prepared 14 Q. 15 by you or compiled under your direction and supervision? Α. Yes, sir, they were. 16 MR. OWEN: Mr. Examiner, I move the admission 17 into evidence of Penwell Exhibits Numbers 1 through 4. 18 19 EXAMINER CATANACH: Exhibits 1 through 4 will be admitted as evidence. 20 MR. OWEN: I have no further questions of this 21 witness at this time. 22 23 EXAMINATION BY EXAMINER CATANACH: 24 25 Q. Mr. Wheeler, has Penwell drilled a 14,000-foot

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1	test in this area?
2	A. Not in this immediate area. We are currently
3	drilling a test in 23 South, 32 East, which is
4	approximately 10 to 15 miles east of here in Lea County,
5	and we're currently at a little below 15,500 feet on that
6	well. We've drilled another Morrow well in that area also.
7	Q. Are these well costs in line with those you're
8	encountering over there?
9	A. Yes, sir.
10	A. Do you know Will Texaco join in this well, do
11	you think?
12	A. I don't know. From my last conversation with
13	their representative, I think they're waiting to see the
14	order and then make their decision. We have discussed at
15	various times trying to purchase their acreage in this area
16	and take them out of the area, but they have not we have
17	not reached agreement to do that at this time.
18	Q. They've got a 25-percent interest?
19	A. Under this proration unit, yes, sir. The south
20	half of the northwest quarter belongs to Texaco.
21	EXAMINER CATANACH: I've got no further
22	questions.
23	This witness may be excused.
24	MR. OWEN: Mr. Examiner my second witness in this
25	matter is Mr. John Thoma.

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JOHN THOMA,	
the witness herein, after having been first duly sworn upon	
his oath, was examined and testified as follows:	
DIRECT EXAMINATION	
BY MR. OWEN:	
Q. Mr. Thoma, please state your name for the record.	
A. John Thoma.	
Q. And where do you reside?	
A. Midland, Texas.	
Q. By whom are you employed?	
A. Penwell Energy.	
Q. And what do you do for Penwell?	
A. Geologist.	
Q. Have you previously testified before the Division	
and had your credentials made a matter of record?	
A. Yes, I have.	
Q. Are you familiar with the Application filed in	
this case?	
A. Yes.	
Q. Are you familiar with the propose Cochiti State	
Com Well Number 1?	
A. Yes, I am.	
MR. OWEN: Mr. Examiner, are the witness's	
qualifications acceptable?	
EXAMINER CATANACH: Yes, they are.	
	JOHN THOMA, the witness herein, after having been first duly sworn upon his oath, was examined and testified as follows: DIRECT EXAMINATION BY MR. OWEN: Q. Mr. Thoma, please state your name for the record. A. John Thoma. Q. And where do you reside? A. Midland, Texas. Q. And where do you employed? A. Penwell Energy. Q. And what do you do for Penwell? A. Geologist. Q. Have you previously testified before the Division and had your credentials made a matter of record? A. Yes, I have. Q. Are you familiar with the Application filed in this case? A. Yes. Q. Are you familiar with the propose Cochiti State Com Well Number 1? A. Yes, I am. MR. OWEN: Mr. Examiner, are the witness's gualifications acceptable?

1	Q. (By Mr. Owen) Mr. Thoma, are you prepared to
2	make a recommendation to the Examiner as to the risk
3	penalty that should be assessed against the nonconsenting
4	interest owners?
5	A. Yes, I am.
6	Q. What is that recommendation?
7	A. 200 percent.
8	Q. On what do you base this 200-percent
9	recommendation?
10	A. The risk of drilling and unsuccessfully
11	encountering commercial production from the objective.
12	Q. Have you prepared certain exhibits to support
13	this risk recommendation?
14	A. Yes.
15	Q. Why don't we go to Penwell Exhibit Number 5?
16	Would you review that exhibit for the Examiner, please?
17	A. Exhibit 5 is an isopach map of the Atoka "AC"
18	sand, which is one of several lower Atoka sands that
19	produce in this area. We're located just east of Malaga,
20	in the southeast corner of Township 23 South, Range 29
21	East, on the very downdip edge of Loving East and Malaga-
22	Atoka Pools.
23	The gas symbols, purple gas symbols with numerals
24	beside them Take, for example the well in Section 29,
25	northwest of the southeast. That is an Atoka "AC" sand

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1	producer. It has a purple marker on it. The well cum'd,
2	as is annotated, 1,270,000,000 cubic feet of gas and 762
3	barrels of condensate. That hydrocarbon volume was
4	produced from 10 feet of sand, which is also annotated on
5	the map.
6	The balance of the wells on that map that have
7	production numbers beside them produce from the Atoka. The
8	wells which produce from this objective sand, the "AC"
9	sand, have the purple markers on them.
10	So there are two producing wells on this map from
11	the "AC" sand: that well in Section 29 which offsets our
12	proposed location in the northeast northwest of Section 32,
13	and then southeast of that in Section 1, in the lower left-
14	hand corner of the map, in the northeast of the northwest
15	of Section 1, that well is also producing from the "AC",
16	and that encountered 16 feet of net sand, and it's produced
17	2.5 BCF of gas.
18	The wells that have the half-circle symbols on
19	them are wells that have indicated "AC" sand A behind pipe.
20	Those wells are showing Atoka cumulatives which have come
21	from predominantly the Atoka bank, which is a carbonate
22	which over or immediately underlies the "AC" sand.
23	The bank is not an objective, a commercial
24	objective, at our location because we are structurally
25	downdip in the Atoka, and there wells which are about flat

1 to us which have been tested and have yielded water from 2 the bank. So our primary objective in the Atoka section at this location is the "AC" sand. 3 4 In looking at this map and the control, it is 5 based entirely on subsurface penetrations of the sand, and you can see there is a fair amount of stratigraphic risk in 6 7 encountering a productive section of "AC" sand. The well in Section -- in the south half of 8 9 Section 30, immediately northwest of our location in 32, has produced 2.3 BCF from the bank. It penetrated 9 feet 10 11 of "AC" sand, which is behind pipe. We believe it will 12 produce from that sand ultimately when tested. That well is offset to the south by Texaco, in 13 the north half of Section 31. That well is essentially a 14 It produced 16 MCF -- or 16 million, excuse me, 15 dry hole. 16 million cubic feet of gas total from the bank, and 16 watered out. It did not penetrate the objective "AC" sand 17 which was the objective of that well at the time. 18 The well down in the north half of Section 6 also 19 20 did not penetrate any "AC" sand. And underneath the stamp -- at least it's underneath the stamp in my map -- in 21 the northeast southeast of Section 28, there is an Atoka 22 23 penetration there which, if you hold it up to the light you'll see there's a zero on that, all right, it did not 24 25 penetrate any sand.

Generally these sandbodies range -- The 1 2 productive width of the sandbody, anyway, ranges about a 3 mile wide. But they can be very sinuous, and that's where the stratigraphic risk enters the picture. 4 5 ο. Okay, let's take a look at your structure map, which is Penwell Exhibit Number 6. Would you please 6 discuss that? 7 8 Α. The structure map is drawn on the base of the Atoka clastics, and the markers, the purple markers are 9 just indicating those wells which produce from the Atoka. 10 11 They're undifferentiated Atoka bank or Atoka "AC". Those 12 are just Atoka producers. 13 I might point out that the well in Section 28 did penetrate a bank section, but it was tight. 14 The well in Section 31, just to the west of the 15 Penwell location in 32, also penetrated bank, but it was 16 wet. 17 18 The well in the south half of 30, again, penetrated bank. It was productive. 19 The well in the north half of Section 31 20 21 penetrated the base of the clastics at a subsea elevation of 9091 feet. 22 Looking at the south end of the map, down in 23 Section 7, there is a well that produced from the Atoka --24 25 in fact, from the Atoka bank -- at 9180. That well was

1	drilled by Enron, as was the well in the north half of
2	Section 7, in the late 1970s and early 1980s. Those wells
3	have since watered out.
4	The well drilled by Texaco in the north half of
5	Section 31 was drilled in the mid- to late 1980s, and it
6	encountered water.
7	So the water column has encroached on the Atoka
8	bank reservoir, at this point, at least to the elevation of
9	9074 feet.
10	So that gives a little bit of documentation or
11	background as to why the Atoka bank in this area will more
12	than likely not produce, unless we find a different
13	reservoir section altogether.
14	Looking at the Atoka sand map, we wanted to stay
15	structurally as close as we could to the producing well in
16	Section 29, and that's why we positioned it in the
17	northeast of the northwest of Section 32. We feel that
18	that is the only location right now that gives us the best
19	chance at encountering commercial reserves from the bank
20	or, I'm sorry, from the "AC" sand.
21	Q. So based on the evidence that you've presented,
22	do you think there's a chance that you could drill a well
23	at the proposed location that would not be a commercial
24	success?
25	A. Yes, I do, given the unpredictability of the

1 strike of these sands, I believe there is a possibility that we could drill this well and not encounter the sand, 2 or encounter a sand with nonproductive porosities. 3 In your opinion, will granting this Application 4 Q. 5 be in the best interests of conservation, the prevention of waste and the protection of correlative rights? 6 7 Α. Yes. 8 Q. Were Exhibits 5 and 6 prepared by you or compiled under your direction and supervision? 9 10 Α. Yes, they were. MR. OWEN: Mr. Examiner, I tender Exhibits 5 and 11 12 6. 13 EXAMINER CATANACH: Exhibit Number 5 and 6 will be admitted as evidence. 14 MR. OWEN: I have no further questions of this 15 witness at this time. 16 17 EXAMINATION BY EXAMINER CATANACH: 18 19 Mr. Thoma, the well in Section 29, is it still Q. producing? 20 Α. Sporadically. It produces, I believe, 100 MCF a 21 I believe they open it up every other week and 22 month. 23 produce it. But it really is depleted at this point. What are the Morrow possibilities at your 24 Q. location? 25

1	A. The Morrow in this immediate area, looking at
2	this plat, has really not been an economic objective. If
3	you took an average of the Morrow producers in this area,
4	cumulatives, they'd be around a half a BCF.
5	Moving away from this area, just off of this
6	plat, in Section 2 of the township immediately adjoining us
7	to the south, 24-29, there are some Morrow producers over
8	there. Penwell participated in a Morrow well in Section 11
9	of 24-29, and that well will probably cum about a BCF. The
10	offset to that well cum'd 2 BCF, 2.5 BCF. But that is the
11	nearest Morrow production, really, of that you might
12	consider commercial quality production.
13	This well will be drilled to the Morrow, because
14	the incremental cost of going from the base of the Atoka
15	clastics into the Morrow is justified by the .5-BCF
16	reserves. The .5 BCF certainly don't justify the cost of
17	drilling this well by themselves.
18	Q. Uh-huh. Uphole, is there any prospects worth
19	talking about?
20	A. There's Delaware potential in this area. We are
21	about 3 miles southeast of the East Loving-Delaware field,
22	which is about a 7-million to date, a 7-million-barrel
23	field.
24	There really has not been significant Delaware
25	production established downdip of that field in this area.

The next nearest -- or the -- yeah, the next nearest 1 Delaware field, at least Brushy Canyon field, would be 2 that's located about Nash Draw, and that's located about 5 3 miles northeast of our location. 4 There is some Ramsey production in Section 7 of 5 24-29 and 12 of 23-29, shown on the very south edge of the 6 7 map. But that's fairly marginal production, 20,000 to 30,000 barrels a well. So to date there really hasn't been 8 9 commercial production established in this area from a 10 Delaware, but I do believe there is the potential for that. 11 EXAMINER CATANACH: Okay. I have nothing further, Mr. Owen. 12 That concludes my presentation in this 13 MR. OWEN: case, Mr. Examiner. 14 15 EXAMINER CATANACH: All right, there being nothing further in this case, Case 11,783 will be taken 16 under advisement. 17 18 (Thereupon, these proceedings were concluded at 19 12:00 noon.) * * * 20 I do hereby certify that the foregoing is 21 a complete record of the proceedings in the Examiner Searing of Cese Mo. 11753 heard by me on 1 ay 11 1997 22 23 aŭ , Examiner Oll Conservation Division 24 25

CERTIFICATE OF REPORTER

STATE OF NEW MEXICO)) ss. COUNTY OF SANTA FE)

I, Steven T. Brenner, Certified Court Reporter and Notary Public, HEREBY CERTIFY that the foregoing transcript of proceedings before the Oil Conservation Division was reported by me; that I transcribed my notes; and that the foregoing is a true and accurate record of the proceedings.

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

WITNESS MY HAND AND SEAL May 20th, 1997.

STEVEN T. BRENNER CCR No. 7

MM.

My commission expires: October 14, 1998