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. 12,473

APPLICATION OF HARVEY E. YATES COMPANY FOR A NONSTANDARD GAS SPACING AND PRORATION UNIT AND AN UNORTHODOX GAS WELL LOCATION, EDDY COUNTY, NEW MEXICO

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: MARK ASHLEY, Hearing Examiner

August 10th, 2000

Santa Fe, New Mexico

00 AUG 16 AH 11: 59

This matter came on for hearing before the New Mexico Oil Conservation Division, MARK ASHLEY, Hearing Examiner on Thursday, August 10th, 2000, 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.

* * *

I N D E X

August 10th, 2000 Examiner Hearing CASE NO. 12,473

	PAGE
EXHIBITS	3
APPEARANCES	3
APPLICANT'S WITNESSES: VERNON D. DYER (Landman)	
Direct Examination by Mr. Feldewert Examination by Examiner Ashley	5 11
GORDON YAHNEY (Geologist) Direct Examination by Mr. Feldewert Examination by Examiner Ashley	13 19
REPORTER'S CERTIFICATE	23

* * *

EXHIBITS

Applicant's	Identified	Admitted
Exhibit 1	7	11
Exhibit 2	8	11
Exhibit 3	8	11
Exhibit 4	9	11
Exhibit 5	10	11
Exhibit 6	14	19
Exhibit 7 Exhibit 8	16 18	19 19

* * *

APPEARANCES

FOR THE DIVISION:

LYN S. HEBERT Attorney at Law Legal Counsel to the Division 2040 South Pacheco Santa Fe, New Mexico 87505

FOR THE APPLICANT:

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

FOR POGO PRODUCING COMPANY:

JAMES G. BRUCE, Attorney at Law 3304 Camino Lisa Santa Fe, New Mexico 87501 P.O. Box 1056 Santa Fe, New Mexico 87504

* * *

```
WHEREUPON, the following proceedings were had at
 1
 2
     10:12 a.m.:
 3
 4
 5
 6
               EXAMINER ASHLEY: At this time the Division calls
7
     Case 12,473, Application of Harvey E. Yates Company for a
 8
     nonstandard gas spacing and proration unit and an
     unorthodox gas well location, Eddy County, New Mexico.
 9
10
               Call for appearances.
               MR. FELDEWERT: Michael Feldewert with the law
11
     firm of Campbell, Carr, Berge and Sheridan for the
12
     Applicant.
13
               EXAMINER ASHLEY: Additional appearances?
14
15
               MR. BRUCE: Mr. Examiner, Jim Bruce of Santa Fe,
     representing Pogo Producing Company. I'm just appearing
16
17
     here today in support of Heyco's Application.
               MR. FELDEWERT: Mr. Examiner, it appears that our
18
     first witness has stepped out for one minute. So if you
19
     could give us a little time?
20
               EXAMINER ASHLEY: That would be fine.
21
22
               (Off the record)
23
               EXAMINER ASHLEY: Will the witnesses please rise
     to be sworn in?
24
25
               (Thereupon, the witnesses were sworn.)
```

1 VERNON D. DYER, the witness herein, after having been first duly sworn upon 2 his oath, was examined and testified as follows: 3 DIRECT EXAMINATION BY MR. FELDEWERT: 5 6 Mr. Dyer, would you lease state your full name 7 for the record? 8 A. Vernon Duane Dyer. And where do you reside? 0. 9 Roswell, New Mexico. 10 Α. 11 Q. And by whom are you employed and in what capacity? 12 Harvey E. Yates Company, I'm the land manager. 13 Α. Have you previously testified before this 14 Division or one of its Examiners and had your credentials 15 as a petroleum landman accepted and made a matter of 16 record? 17 18 Α. Yes, I have. 19 Q. And are you familiar with the Application that's 20 been filed in this case? 21 Α. Yes. 22 Q. And are you familiar with the status of the lands 23 in the subject area? 24 A. Yes, I am. 25 MR. FELDEWERT: Mr. Examiner, are Mr. Dyer's

qualifications acceptable?

EXAMINER ASHLEY: They are.

- Q. (By Mr. Feldewert) Would you briefly state for the Examiner what Harvey E. Yates Company seeks with this Application?
- A. We seek a nonstandard gas spacing and proration unit comprised of Lots 1 and 2, the east half of the northwest quarter and the northeast quarter, being the north-half equivalent of Section 7, 20 South, 27 East, Eddy County, New Mexico, and an order approving an unorthodox gas location for our proposed Turner Federal "7" Deep Well Number 1, to be drilled at an unorthodox gas well location 1980 feet from the north line and 660 from the west line, being unit E of Section 7.
 - Q. Section 7 is an irregular section; is that right?
- 16 A. Yes, yes.
 - Q. And you're unorthodox because you're going to be closer to the west line than what the pool rules allow; is that correct?
 - A. That is correct.
 - Q. All right. What is the primary objective of the proposed well?
 - A. The Morrow formation.
- Q. And which pool is that in?
 - A. It's the McMillan-Morrow Gas Pool.

- Q. Are there special pool rules in effect for the McMillan-Morrow Gas Pool?
 - A. Yes, there are.

- Q. Do you have exhibits in front of you?
- A. I have 1 in front of me.
- Q. Would you describe for the Examiner Heyco Exhibit
 Number 1?
- A. It's a copy of the McMillan-Morrow Gas Pool rules. It provides for a 640-acre spacing and proration unit and that the wells will be located no closer than 1650 feet from the outer boundary of the section and no nearer than 330 feet to any governmental quarter quarter section.

And Heyco in this deal is seeking a north-half proration unit and location of 660 from the outer boundaries.

- Q. Has an Application recently been heard by the Division to amend the McMillan-Morrow Gas Pool Rules?
- A. Yes, it has, and it's subject to Case 12,463, heard on July the 13th, in which Pogo Producing Company seeks amendment of the special pool rules to provide for a four-well or 640-acre spacing unit with wells located no closer than 660 from the quarter-section line, nor closer than 10 feet from the quarter-quarter section line.
- Q. Does Heyco's proposed well in this case comply with the special pool rules proposed by Pogo?

- Yes, if granted, the Heyco Application will not 1 Α. 2 be necessary. Okay, why don't you move to Heyco Exhibit Number 3 2, and please describe that for the Examiner? 4 A. It's a land plat showing the McMillan-Morrow Gas 5 Pool, the five sections there, and then it's showing the 6 nonstandard 320 in the south half of Number 7 that Pogo has 7 for the Davis well, and then the nonstandard north half of Section 7 that we propose, and it shows the proposed Turner "7" Federal Deep Number 1 location in the north half of 10 Section 7. 11 12 Is the north half of Section 7 the only acreage available in that section for a Morrow well? 13 14 Α. Yes, that's the reason for the request of the 15 north nonstandard location. 16 0. What is the status of the development in the south half of Section 7? 17 Section 7 is subject to Order Number R-11,308, 18 which approved a nonstandard unit and unorthodox location 19 in the south half of Section 7. 20 Okay, do you have Heyco Exhibit Number 3 in front 21 Q. of you? 22
 - That's the order, showing it entered January the

24

25

Α.

Q.

Α.

Yes.

Is that the order --

- 9 1 13th of 2000, Pogo is the operator, approved nonstandard 2 320 gas spacing and proration unit comprising the south half of Section 7, dedicated to the Davis "7" Number 1 3 well, which was drilled 660 from the south line and 660 4 from the west line. 5 Did Heyco have any objection to Pogo's proposed 6 ο. well? 7 No, Heyco waived all objection to this location 8 Α. and nonstandard unit. 9 Where is the well that was approved by Pogo shown 10 on Exhibit Number 2? 11 Number 2? It's in the southwest of the southwest 12 A. quarter of Section 6. 13 Okay. How does that compare to your proposed 14 15 location in the north half of Section 7? Α. It's virtually identical to ours in Section 7. 16 We were 660 and 330 from the quarter-section line. 17 distance from the west line. 18 0. What percentage of the working interest 19 Okay.
 - does Heyco own or represent in the north half of Section 7?
 - Α. 100 percent.
 - Do you have Exhibit Number 4 in front of you? Q. Heyco Exhibit Number --
- 24 Α. Yes, I do.

21

22

23

25

Is Heyco Exhibit Number 4 an affidavit Q.

- establishing that notice of this Application was provided
- 2 | in accordance with the rules of the Oil Conservation
- 3 Division?
- A. Yes, it is.
- Q. Have you received a response to these notice letters that went out? Let me have you turn to Heyco
- 7 Exhibit Number 5.
- B A. Turn to Heyco Exhibit Number 5.
- O. Yes, it would the next exhibit.
- 10 A. Oh, okay. Yes, I have. I get lost here in my --
- 11 Q. That's all right.
- 12 A. -- paperwork. I'll stay with you.
- Q. Would you explain what Exhibit Number 5 is?
- A. It's a letter from Jim Bruce, an attorney
- 15 | representing Pogo, stating that Pogo has no objection to
- 16 | the nonstandard location and...
- 17 Q. They have no objection to your Application?
- 18 A. They have no objection. I was taking a quick
- 19 | read to make sure I didn't leave anything out.
- 20 Q. Were Heyco Exhibits 1 through 5 prepared for you
- 21 or compiled at your direction?
- 22 A. Yes, they were.
- Q. Does Heyco request an expedited order on this
- 24 | Application?
- 25 A. Yes, we do. We have a rig ready to move on

location immediately. 1 MR. FELDEWERT: All right. Mr. Examiner, at this 2 time I would move the admission into evidence of Heyco 3 Exhibits 1 through 5. 4 5 EXAMINER ASHLEY: Exhibits 1 through 5 will be 6 admitted as evidence. 7 MR. FELDEWERT: That concludes my direct 8 examination of this witness. 9 **EXAMINATION** 10 BY EXAMINER ASHLEY: Mr. Dyer, who operates -- or who owns the 11 interest in Section 12? 12 It is a combination of people that own the 13 interest in it. We own some of it, but it's a split-up 14 15 among quite a few parties. 16 Q. And they've all been notified? 17 And they were notified, yes. And that's part of Exhibit --18 Q. 19 Part of the Application, or the affidavit. Α. Okay. 20 Q. They were listed there. 21 Α. 22 Q. Exhibit Number 4? 23 Α. Yes. In the south half of Section 7, there's two other 24 25 wells in that south half. Those have been abandoned?

1 Α. Plugged. 2 Plugged? Q. Yes. 3 A. Q. Were those also Morrow producers? 5 A. The one in the northeast of the southwest was a 6 Morrow producer, because as the Heyco Davis "A" --7 Heyco Davis -- Singer Davis. MR. YAHNEY: 8 THE WITNESS: Singer Davis "A" --9 MR. YAHNEY: No "A". 10 THE WITNESS: Heyco Singer Davis Number 1 --11 MR. YAHNEY: And the one in the southeast southeast is also a Morrow gas well. 12 13 THE WITNESS: Yes, and both are plugged at this Neither one of them made a lot of gas. I think that 14 15 will be covered by the next witness. (By Examiner Ashley) Okay, what is this in 16 0. 17 Section 18, in the northwest northwest, there's a proposed Davis "18" Number 1? 18 19 That is a -- Pogo proposed well. Α. 20 Q. Okay. 21 MR. FELDEWERT: Mr. Examiner, I would note for 22 the record, I think this was an exhibit that Pogo used in an application. 23 24 EXAMINER ASHLEY: Okay.

I'm looking at the legend at the

MR. FELDEWERT:

1	bottom.
2	EXAMINER ASHLEY: Okay, I see that.
3	THE WITNESS: Yes, this is the one they proposed.
4	EXAMINER ASHLEY: Okay, thank you. I have
5	nothing further.
6	MR. FELDEWERT: Mr. Examiner, at this time then,
7	we would call Mr. Gordon Yahney.
8	GORDON YAHNEY,
9	the witness herein, after having been first duly sworn upon
10	his oath, was examined and testified as follows:
11	DIRECT EXAMINATION
12	BY MR. FELDEWERT:
13	Q. Would you please state your name for the record?
14	A. My name is Gordon Yahney.
15	Q. Where do you reside, Mr. Yahney?
16	A. I reside in Roswell, New Mexico.
17	Q. And by whom are you employed?
18	A. I'm employed by Harvey E. Yates Company as chief
19	geologist.
20	Q. Have you previously testified before this
21	Division?
22	A. Yes, I have.
23	Q. At the time of that testimony, were your
24	credentials as a geologist accepted and made a matter of
25	public record?

- 1 A. Yes, sir, they were.
 - Q. Are you familiar with the Application filed in this case on behalf of Heyco?
 - A. Yes, sir.

3

4

5

6

7

8

9

10

16

17

- Q. And have you made a technical study of the area surrounding the proposed well?
 - A. Yes, I have.
- Q. And are you prepared to share the results of that study with the Examiner?
 - A. Yes.
- MR. FELDEWERT: Mr. Examiner, are the witness's qualifications acceptable?
- 13 EXAMINER ASHLEY: They are.
- Q. (By Mr. Feldewert) What is the primary objective of this proposed well?
 - A. The primary objective of the proposed well is the Morrow formation.
- Q. And have you prepared exhibits for presentation which show this objective?
 - A. Yes, I have.
- Q. Why don't you turn to what has been marked as
 Heyco Exhibit Number 6? Explain that for the Examiner,
 please.
- A. Okay. Heyco Exhibit Number 6 is a middle Morrow net sand map, isolith map. The middle Morrow is the upper

of two clastic producing zones in southeastern New Mexico.

The pay zone for the McMillan-Morrow Pool is in the middle

Morrow part of the Morrow section, and the map here shows

our proposed Turner "7" Federal Deep Number 1 location in

the southwest of the northwest of Section 7. It also shows

the Pogo Davis well, which was completed earlier this year

in the southwest of the southwest of Section 7.

- Q. Is that the well that was the subject of the order which has been marked as an exhibit in this case?
 - A. That is correct.

- Q. Okay. The middle Morrow is shown how here? Is that the dark yellow, deep yellow?
- A. The middle Morrow sand thickness is marked in yellow. The deeper yellow colors are greater thicknesses of middle Morrow sands. The middle Morrow is picked here basically on a gamma-ray cutoff from the electric logs.
- Q. There's a well that is shown in Section 7, about in the middle of that. Do you know what well that is?
- A. That well is the Heyco Singer Davis well. It's currently in the south-half proration unit which is operated by Pogo.
 - Q. Is that well producing at this time?
- A. That well is not producing at this time. It was productive from the middle Morrow section, and it cum'd roughly about 125 million.

1 Q. Was that an orthodox well?

- A. That well was an orthodox well for the McMillan field pool rules at the time. It was drilled in about 1976.
- Q. Does this map show it right at the edge of the pay zone in the deep yellow; is that right?
 - A. That's correct.
- Q. Why don't you turn to Exhibit Number 7 and explain that for the Examiner, please?
- A. Okay. Exhibit Number 7 is a Morrow structure map. It was prepared by a gentleman by the name of Turner Wynn. He was chief geologist for Heyco in the late 1960s and middle 1970s. I have attached to that particular map a type log to show you the section that was in the Hondo Singer "C". That well was in Section 18, in the southeast of the northwest quarter.

Superimposed on top of the structure map for the Morrow formation there is the -- what has been identified as the M-3 or Morrow 3 channel sand map, and it shows a black line depicting what Turner thought was to be the axis of the channel, and a red dashed line out on the edge which showed pretty much the depositional limit of that particular sand channel.

The M-3 designation of his roughly corresponds to what Pogo calls the Singer sand that was mentioned in some

of the previous hearings.

- Q. Okay, it shows your well on here; is that correct?
- A. The map has been annotated to show the Pogo Davis well in the southwest of the southwest of Section 7. It's also been annotated to show the proposed location for the Heyco Turner "7" Federal Deep in the southwest of the northwest.

If you notice also on this map, there is a location up in 6. This was a standard location for the McMillan field pool rules, and it was something that Turner thought might be done in 1976. This map was constructed at that point for the drilling of the Heyco Singer Davis well.

When the Heyco Singer Davis well came in with roughly 20 foot of net sand in that particular interval, and it was broken up, and the production turned out to decline quite rapidly, and it only cum'd 125 million, we did not proceed with the further development of the McMillan-Morrow Pool at that time.

And we thought that probably from this map -Turner probably thought that the channel was to the west of
the Singer Davis well, and the subsequent drilling now of
the Pogo Davis well has shown that the thick channel sand
is to the west of that particular location.

Q. Would you turn now to Exhibit Number 8 and

identify that for the Examiner, please?

A. Exhibit Number 8 is a southwest-to-northeast cross-section. It's an Atoka-Morrow cross-section for the -- It runs from the Pogo Davis well on the left, through the Heyco Turner location, to the Yates Federal Deep well in Section 5 and then over to the OXY Fig Newton well in Section 4.

It's annotated with the Atoka and Morrow tops, as well as the -- it's highlighted to show neutron density crossover gas effect or potential gas pay in the Morrow section, and the extent of the lower middle Morrow or Singer sand, M-3 channel section, has been marked in there in yellow.

- Q. Now, the Pogo Davis "7" well is, again, the well that was the subject of the unorthodox location order that's been marked as Exhibit 3?
 - A. That's correct.
- Q. Okay. What conclusions have you reached from your geologic study?
- A. The conclusions, that our unorthodox location for the current McMillan field pools would be the best possible location from which to produce the remaining Morrow reserves in the north half of Section 7.
- Q. In your opinion, will the granting of this

 Application and the drilling of the proposed well be in the

best interests of conservation, the prevention of waste and 1 the protection of correlative rights? 2 3 Α. Yes, it will. Were Exhibits Number 6 through 8 prepared by you 4 Q. 5 or at your direction? A. Yes, they were. 7 MR. FELDEWERT: Mr. Examiner, I would at this 8 point move the admission into evidence of Heyco Exhibit 9 Numbers 6 through 8. EXAMINER ASHLEY: Exhibits 6 through 8 will be 10 admitted as evidence. 11 12 MR. FELDEWERT: And that concludes my 13 presentation at this time. 14 EXAMINATION 15 BY EXAMINER ASHLEY: 16 Mr. Yahney, on Exhibit Number 6 --Q. 17 Α. Uh-huh. 18 Q. -- the well symbols that you have in there --Yes, sir. 19 Α. -- there's one in Section 18 that's a little 20 21 bigger than the rest of them. Is there any significance to that? 22 That well is the Hondo Singer "C" or Heyco Hondo 23 Α. Singer "C". The size of it -- It is the type log that's on 24 25 the Exhibit Number 7, but the size of that particular well

is bigger because of the -- in this particular map the production was bubbled, so a bigger producing well has a bigger well symbol. That well has produced over 6 BCF of gas.

- Q. That well is not on the cross-section, is it?
- A. That well is not on the cross-section that I have provided you. If you -- Let me see here. That well is on the cross-section that was provided to you by Pogo, I think. Let me look real guick.
 - Q. Are you talking about presented in the case --
- A. I guess it was not. It was not, excuse me. It was not either on that cross-section. But that is the log that's on the Exhibit 7 as your type log for the section.
 - Q. What's the status of that well right now?
- A. As far as I know, Pogo has gone back into that particular well and done some sort of investigative work, and I do not know how they have left it. You know, it was plugged by us in the mid-1980s, and they have gone back in there for information or to try to re-establish production. I do not know what they found.
- Q. And that's production from this middle Morrow sand?
- A. That's correct. The 6 BCF was from a correlative interval to the expected pay.
 - Q. How much pay do you need to encounter in order

for this well to be successful?

- A. I would think that we would want to see something in the neighborhood of 30 feet. And it's kind of more important that we see that package of sand as pretty much one sand, instead of an interfingered edge-type of a situation of the channel.
 - Q. And what porosity cutoff would you use?
- A. Generally for Morrow sands, I use about an 8-percent cutoff. The original Hondo Singer well that you've got there as a type log, that's a sonic log, and I have not -- It's rather difficult to calculate the porosity there to give a good, accurate thickness for that.

But according to the documentation that was submitted by Pogo, they expect the Pogo Davis "7", which encountered 30-some feet of sand, to have an EUR in the neighborhood of 2 BCF of gas, which is quite economical with current gas prices.

- Q. Now, can you tell me again which wells in this area are currently producing from the McMillan-Morrow Gas Pool? I'm looking at Exhibit Number 6. If you have a better exhibit --
- A. I do not particularly have a better exhibit to show that. Currently producing from this pool, I believe, are the well in Section 13 and the well in Section 19. And the posting that I'm using for this map does not

1	necessarily show that a well was plugged when it has been.
2	It shows that it has cum'd gas, and the gas symbol reflects
3	that, but it doesn't show that it's been plugged.
4	EXAMINER ASHLEY: I have nothing further, thank
5	you.
6	MR. FELDEWERT: Thank you, Mr. Examiner.
7	EXAMINER ASHLEY: There being nothing further in
8	this case, Case 12,473 will be taken under advisement.
9	(Thereupon, these proceedings were concluded at
10	10:41 a.m.)
11	* * *
12	
13	
14	
15	
16) 🏎 herapy certify that the foregoing is
17	the Examiner hearing of Case 180. 1247).
18	heard by me on 8-0.00
19	Of Conservation Devision
20	
21	
22	
23	
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 August 12th, 2000.

STEVEN T. BRENNER

CCR No. 7

My commission expires: October 14, 2002