## STATE OF NEW MEXICO 1 2 ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT 3 OIL CONSERVATION DIVISION 4 IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION 5 DIVISION FOR THE PURPOSE OF CONSIDERING: 6 CASE NO. 10248 7 APPLICATION OF PITTS ENERGY COMPANY FOR AN UNORTHODOX WELL 8 LOCATION, LEA COUNTY, NEW MEXICO 9 10 REPORTER'S TRANSCRIPT OF PROCEEDINGS 11 EXAMINER HEARING 12 BEFORE: MICHAEL E. STOGNER, Hearing Examiner 13 March 21, 1991 14 9:50 a.m. Santa Fe, New Mexico 15 16 This matter came on for hearing before the Oil 17 Conservation Division on March 21, 1991, at 9:50 a.m. 18 at Oil Conservation Division Conference Room, State Land 19 Office Building, 310 Old Santa Fe Trail, Santa Fe, New 20 Mexico, before Paula Wegeforth, Certified Court Reporter 21 No. 264, for the State of New Mexico. 22 23 FOR: OIL CONSERVATION BY: PAULA WEGEFORTH 24 DIVISION Certified Court Reporter 25 CSR No. 264

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APPEARANCES ROBERT G. STOVALL, ESQ. FOR THE DIVISION: General Counsel Oil Conservation Commission State Land Office Building 310 Old Santa Fe Trail Santa Fe, New Mexico 87501 FOR THE APPLICANT: KELLAHIN, KELLAHIN & AUBREY Attorneys at Law BY: W. THOMAS KELLAHIN, ESQ. 117 North Guadalupe Street Santa Fe, New Mexico 87501 

EXAMINER STOGNER: I'll call next case, No. 10248, 1 2 which is the application of Pitts Energy Company for an 3 unorthodox oil well location, Lea County, New Mexico. This case was heard by Examiner Catanach on 5 February 21st, 1991. At this time I'll call for any 6 additional appearances or testimony. 7 MR. KELLAHIN: Mr. Examiner, I'm Tom Kellahin of the law firm of Kellahin, Kellahin & Aubrey. I appeared at the 8 9 original hearing for Pitts Energy, and we have submitted 10 for your attention a proposed order in this case. 11 This is the case that was misadvertised with the 12 wrong county, and that was the change. We have an expiring 13 lease problem we'd like to deal with, if we could have you take a look at that -- or our order at the appropriate 14 15 time, we'd appreciate it. 16 EXAMINER STOGNER: Do you have that with you today? 17 MR. KELLAHIN: I have another copy. I'd be happy to 18 give it to you. 19 EXAMINER STOGNER: Is this all you have, Mr. Kellahin? 20 MR. KELLAHIN: Yes, sir. 21 EXAMINER STOGNER: Does anybody else have anything 22 further? 23 At this time I'll take this case under 24 advisement.

Mr. Kellahin, if you could just do me a big

favor.
MR. KELLAHIN: Yes, sir.
EXAMINER STOGNER: This case will be taken under
advisement.
(The foregoing hearing was concluded at the
approximate hour of 10:25 a.m.)
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the Exendinar exacting of Case 113. 10248 heard by me on 21 Magch 1941.
Markey & Stopmen, Examiner
Oil Conservation Division

1 2 STATE OF NEW MEXICO 3 ) SS. COUNTY OF SANTA FE 4 5 REPORTER'S CERTIFICATE 6 7 I, PAULA WEGEFORTH, a Certified Court Reporter and 8 9 Notary Public, DO HEREBY CERTIFY that I stenographically 10 reported these proceedings before the Oil Conservation Division; and that the foregoing is a true, complete and 11 12 accurate transcript of the proceedings of said hearing as 13 appears from my stenographic notes so taken and transcribed 14 under my personal supervision. 15 I FURTHER CERTIFY that I am not related to nor 16 employed by any of the parties hereto, and have no interest 17 in the outcome hereof. 18 DATED at Santa Fe, New Mexico, this 20th day of April, 19 1991. 20 21 22 My Commission Expires: Certified Court Reporter September 27, 1993 23 CSR No. 264, Notary Public 24

	STATE OF NEW MEXICO
	ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
	OIL CONSERVATION DIVISION
	N THE MATTER OF THE HEARING )
CA	ALLED BY THE OIL CONSERVATION ) IVISION FOR THE PURPOSE OF )
	ONSIDERING: ) CASE NO. 10248
F	PPLICATION OF PITTS ENERGY ) OR AN UNORTHODOX WELL LOCATION, ) EA COUNTY, NEW MEXICO )
	REPORTER'S TRANSCRIPT OF PROCEEDINGS
	EXAMINER HEARING
	BEFORE: DAVID R. CATANACH, Hearing Examiner
	February 21, 1991 11:10 a.m. Santa Fe, New Mexico
	This matter came on for hearing before the Oil
С	onservation Division on February 21, 1991, at 11:10 a.m.
ā	t Oil Conservation Division Conference Room, State Land
0	ffice Building, 310 Old Santa Fe Trail, Santa Fe, New
M	exico, before Paula Wegeforth, Certified Court Reporter
N	o. 264, for the State of New Mexico.
F	OR: OIL CONSERVATION  DIVISION  BY: PAULA WEGEFORTH  Certified Court Reporter  CSR No. 264

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FOR THE DIVISION:

## APPEARANCES

ROBERT G. STOVALI, ESQ. General Counsel

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Attorneys at Law

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\* \* \*

]	EXAMINER CATANACH: We will call the hearing back to
2	order and call Case 10248.
3	MR. STOVALL: Application of Pitts Energy Company for
4	an unorthodox oil well location, Eddy County, New Mexico.
5	EXAMINER CATANACH: Are there appearances in this
6	case?
7	MR. KELLAHIN: Yes, Mr. Examiner. I'm Tom Kellahin of
8	the Santa Fe law firm Kellahin, Kellahin & Aubrey,
q	appearing on behalf of the applicant, and I have one
10	witness.
11	EXAMINER CATANACH: Any other appearances?
12	Will the witness please stand and be sworn in?
13	(Whereupon the witness was duly sworn.)
1 4	GERALD S. PITTS
15	the Witness herein, having been first duly sworn, was
16	examined and testified as follows:
17	DIRECT EXAMINATION
18	BY MR. KELLAHIN:
19	Q. Mr. Pitts, for the record, would you please
20	state your name and occupation?
21	A. Gerald S. Pitts. I'm a petroleum geologist, and
22	I am president of Pitts Energy Company.
23	Q. Mr. Pitts, on a prior occasion, have you
24	testified before this division as a geologist?
25	A. I have not.

- 1 Q. Summarize your educational background, please.
  - A. I have a bachelor of science in geology from the University of Texas at Austin, 1954. I was employed by the Humble Oil and Refining Company for ten years as an exloration geologist, production geologist, core drill geologist, surface etc., etc., and I quit in 1966. For the next 16 years I was an independent geologist, working out of Midland, Texas.

Since 1982, I've had Pitts Energy Company, and we're active in oil and gas exploration.

- Q. Where do you reside?
- A. Midland, Texas.

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- Q. Describe for us what your personal activity has been and your company's activity in Eddy County, New Mexico, in this Gladiola Pool for the development of oil production.
  - A. Lea County, New Mexico.
- Q. Well, the docket here says Eddy County, so maybe we got the wrong place.
  - A. It's Lea County, New Mexico.
- Q. Okay. Let's double-check while we're thinking about this.
- MR. STOVALL: Let's check the description here and see if we're talking about the same well.
- 25 EXAMINER CATANACH: This is definitely in Lea County.

1 MR. KELLAHIN: We've got a typo in the ad, Mr. Examiner. The rest of the description is correct. 2 3 0. (By Mr. Kellahin) Okay. Let's talk about --MR. STOVALL: Five miles north of Gladiola? 4 5 MR. KELLAHIN: That's right. 6 Q. (By Mr. Kellahin) Let's talk about Lea County. 7 In the Gladiola Pool here, describe for us what has been your involvement. 8 9 We got involved in this prospect last year and -- in light of trying to create an active drill 10 11 prospect, one that would be commercial for our company and 12 our participants. Does part of your drilling activity include the 1.3 Q. proposed unorthodox well location for this particular 14 40-acre tract today? 15 16 Α. Yes, it does. 17 Pursuant to that study, have you reached certain Q. 1.8 conclusions about that location? Yes, we have. 19 Α. 20 MR. KELLAHIN: I tender Mr. Pitts as an expert petroleum geologist. 21 22 EXAMINER CATANACH: He is so qualified. 23 Ο. (By Mr. Kellahin) Let me have you commence by

taking what is marked Exhibit No. 1, this land plat, and

identify for the examiner the acreage that's under your

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direction and control.

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- 2 A. The acreage in question is the southeast quarter 3 Section 5 12 38, Lea County, New Mexico.
  - Q. The proposed unorthodox location is in what quarter, quarter section, Mr. Pitts?
    - A. That would be location J.
  - Q. Within that 40-acre tract, you're moving to the southeast corner of that tract?
    - A. That is correct.
  - Q. You're moving, then, towards the other three

    40-acre tracts that are included in the same ownership with
    the 40-acre tract in which the well will be drilled?
    - A. That is correct.
  - Q. Are there any differences in interest owners between working royalty or overrides within the southeast quarter of that Section?
  - A. No, there are not.
    - Q. Let's turn now to Exhibit No. 2. That's your form C-101.

This identifies and describes the permit for drill and the aspects of the drilling of the well?

- A. Yes. Yes, it does.
- Q. All right. Exhibit No. 3 is your C-102 that specifically locates the well?
  - A. Yes, it does.

- Q. And that has been surveyed in and you're satisfied it's been accurately stated?
  - A. Yes, that's correct.

- MR. KELLAHIN: Mr. Examiner, Exhibit No. 4 is the notice of hearing. We extended the notice and sent notice to other operators in the immediate area. I think the notice rules would have allowed us not to send notices at all, quite frankly. He's encroaching upon himself.
- Q. (By Mr. Kellahin) Let's turn now to the main topic of discussion, Mr. Pitts. It's Exhibit No. 5.

Identify that for us.

- A. This is a portion of a structure map contoured on top of the Devonian of the western -- excuse me -- the eastern edge of the Gladiola field.
- Q. Is the Devonian structure a good, reliable marker to identify structure for the Gladiola field?
- A. Yes, it is. It's my understanding the Gladiola field, per se, is the first reservoir found, and that would be the -- actually, the Gladiola-Devonian. But I believe New Mexico prorates it as the Gladiola field, if I'm not mistaken.
- Q. Give us a short summary of the development of the pool.
- A. The field was discovered in 1950, and since 1950 the Devonian field had, through its development, which

would have been about 1958, 101 wells completed out of the Devonian. 52 million barrels of oil was produced. At the present time, the Devonian is depleted and no wells are productive.

There are two additional -- in fact, three additional pays, one a marginal canyon reservoir that was found. Two Mississippian wells were productive. One was very good. One was very marginal.

The Wolf Camp zone is productive in the field.

Out of 39 wells, it has a cumulative of 91,000 barrels per location.

- Q. What are you trying to accomplish with the proposed unorthodox-located well within the southeast quarter of Section 5?
- A. Our goal is to drill a high seismic shock point. We did a subsurface analysis of this particular area, and if you'll look at your subsurface interpretation, the well located in J, in relationship to the well in K, the well in O in relationship to N, you'll notice an anomaly of west dip, which is not what you would normally expect on this particular portion of the field. You should expect east dip coming off this field.

Gladiola field is the large north-south anticline faulted -- down-faulted on the west side with gentle dip coming off to the east. This establishes a very

- distinct anomaly, and, if you'll notice, even dip to the south. From Section 5 down to Section 8 you have south dip. You also have dip from -- in Section 5 from Quarter Section J to G. That's north dip. And also J back to F,
- 5 which would be northwest dip. All are anomalous.

- Now, this was not sufficient for us because we felt like we had to substantiate that from a seismic standpoint with the expenditure of this amount of money, which we have done, and you'll notice the high shock point 220 is the actual proposed location. That location that we staked is right on shock point 220.
- Q. Where would be the closest standard location in relation structurally to the unorthodox location?
- A. It would be to the north. I believe it would be 180 -- let's see, be 140 feet, I believe. 140 feet, thereabouts, to the north.
- Q. In terms of structural position, how many feet do you lose structurally, approximately?
- A. We would anticipate losing anywhere from ten to 20 feet of structure as you move to the north, based on the seismic which we have at our disposal.
- Q. Do you have a geologic opinion as to whether or not there are recoverable oil reserves to be recovered in the northwest of the southeast of Section 5?
  - A. We -- the original oil-water contact in the

field was -- and there are multiple oil-water contacts, but in this immediate area we think the oil-water contact was minus 8140.

This with -- you have an extremely active water-drive reservoir in this Devonian, and with the extraction of 52 million barrels of oil, this water has encroached and moved up as evidenced by the well drilled in the northeast northeast of Section 8 by -- in 1981 by Anadarco. Anadarco drilled that well and encountered a situation in which we think the current oil-water contact is somewhere in the neighborhood of minus 8100 to minus 8110.

So we would anticipate, based on our seismic interpretation, that we can get 60 feet high to the current oil-water contact.

- Q. And that should put you at a place in the reservoir where you'll have the maximum opportunity to capture the recoverable oil that might remain in the southeast quarter of 5?
- A. Yes, that's correct. In our interpretation, that is definitely correct.
- Q. And you would not have that opportunity if you were required to drill at the closest standard location in any one of the four of those 40-acre tracts?
  - A. That is correct. We would be drilling off

1	structure, according to our seismic.	
2	MR. KELLAHIN: That concludes my examination of	
3	Mr. Pitts, Mr. Catanach. We would move the introduction of	
4	Exhibits 1 through 5.	
5	EXAMINER CATANACH: Exhibits 1 through 5 will be	
6	admitted as evidence.	
7	(Whereupon Applicant's Exhibits 1 through 5 were	
8	admitted into evidence.)	
9	EXAMINATION	
10	BY EXAMINER CATANACH:	
1 1	Q. Mr. Pitts, the structure that you've manned in	
12	that southeast quarter that was entirely based on	
13	seismic information?	
1 4	A. The high apex that you see, that's correct.	
15	Q. Have you used seismic in this area before	
16	successfully to map these structures?	
17	A. I have not, no, sir.	
18	Q. How much faith do you have in the seismic	
1.9	information?	
20	A. Well, quite a bit to risk the type of dollars	
21	we're going to spend.	
22	Q. Okay.	
23	A. We're going to spend about a million dollars out	
24	there on the venture, so I guess you'd say we've got quite	

a bit of faith in it.

- 1 Q. Now, as I understand it, this is about a 2 12,000-foot test?
  - A. Yes, sir, that's correct.

- Q. Do any of the wells in the field tend to drift in any one direction during drilling operations?
- A. Normally -- it's the pretty standard oil field explanation that the bit drifts uphill. It goes to the apex.
- Q. So you don't expect any significant difference between the standard and the bottom-hole location?
- A. No, we do not. We have certain restrictions on the contractors which prevent them from allowing the hole to drift too far on each drilling contract we enter into, and these deviation surveys are taken periodically as we go down the hole.
- Q. But it wouldn't take much to throw that hole off for that depth?
- A. Should this -- should we notice any type of drift as far as moving out away, the standard procedure is to pull up on the weight and just, you know, sit there and dust on it a while and straighten that hole back up.
- Q. Now, as I understand it, one of the basic reasons for drilling high up on the structure is to avoid the current oil-water content?
  - A. That's correct.

- Q. Is there any other significant reason why you would drill up structure?
  - A. What do you mean by that, sir?
  - Q. Well, is there any other -- do you notice any changes in permeability or porosity on top of the structure?
    - A. No. Every well located in this immediate vicinity, as you come out of the Woodford, you're in the Devonian porosity. There is no cap.

You have to move off structure. This well that has a sub-C of minus 8157 in Section 8, that would be in --let's see -- Section G. It does have about ten to 15 feet of tight Devonian beneath the Woodford.

But in this immediate area where we are, where our quarter section is located, the type of the Devonian is porous, as indicated by logs.

- Q. There are two other wells in that southeast quarter of Section 5?
  - A. That's correct.
    - Q. What's the status of those wells?
- 21 A. They are plugged.
- 22 Q. They are plugged?
- A. Yes, sir.

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- Q. Do they both produce from the Devonian?
- A. Yes, sir, they do.

Q. So you believe there are still sufficient reserves to drill your proposed well?

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A. Yes, sir. We -- the Anadarco well, which would be located in A of Section 8, drill-stem tested to minus 8116 and was waterfree. However, when they went in and ran their production string, they only made 1500 barrels of oil before it went to water.

In fact, they made water from the very beginning, and they weren't prepared to go ahead and handle it. I would assume they could have produced quite a bit of oil had they handled the water.

We think there is a good indication that that oil-water contact has encroached 35 to 40 feet.

- Q. Now, the oil-water contact you're referring to -- how large an area would that encompass or how far out would that extend from your proposed location?
- A. As our seismic has it mapped, you'll see we could have a sizable area of -- what? -- 80 acres or something of that nature. Something like that.
- Q. And all of the interest is common in the southeast quarter?
  - A. Yes, sir, that's correct.
  - Q. Is that one single lease?
- A. It's one single lease. There are numerous owners, but it's a family of people, but they all sign on

1 the same lease. But -- yes, it's undivided. They are all undivided on the quarter section. It is one instrument. 2 EXAMINER CATANACH: I have no further questions of the 3 4 witness. He may be excused. 5 MR. STOVALL: Mr. Examiner, I've looked at the 6 advertisement for this case and checked the publication. 7 It is indeed advertised as Eddy County and was published in Я the Artesia paper, so that is the error of the division. 9 I apologize to Mr. Pitts for that, but we will 10 have to readvertise the case. 11 EXAMINER CATANACH: And it will have to be for March 21st. 12 13 MR. STOVALL: 21st, right. 14 EXAMINER CATANACH: So --15 MR. STOVALL: Do you have a lease problem out there, 16 Mr. Pitts? 17 THE WITNESS: Yes, we do. 18 MR. STOVALL: What's your lease expiration? 19 THE WITNESS: April 2nd. 20 MR. STOVALL: When did you plan to commence drilling? 21 THE WITNESS: As soon as we got permission. 22 What would this require me --2.3 MR. STOVALL: You don't have to do anything. We just 24 have to readvertise the case in Lea County, the Lovington 25 paper in Lea County. That requires a 20-day notice, and we

1 can't do that before the hearing docketed for the 7th. 2 THE WITNESS: Would I be required to come back up 3 here? 4 MR. STOVALL: No. 5 THE WITNESS: And the next hearing is when? What are 6 you talking about? 7 EXAMINER CATANACH: It would be for March 21st. 8 THE WITNESS: March 21, and then what's the time 9 period after that? 10 MR. STOVALL: An order could be issued -- depending on the examiner, an order could be issued fairly immediately 11 after that. 12 13 THE WITNESS: Okay. MR. STOVALL: There won't be any additional --14 15 assuming nobody appears and objects to your location, which 16 is probably a safe assumption in this case, an order could 17 be issued. THE WITNESS: We can handle the expiration. We can --18 19 MR. KELLAHIN: An alternative suggestion, Mr. Catanach, would be -- I can't imagination there being 20 21 any problem with this kind of an unorthodox location where 22 he's moving towards himself and there is a common ownership 23 involved. If we could have verbal approval so that the

district office would let him commence his well, the order

can catch up with the well itself and let him go ahead and

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     start his well.
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           THE WITNESS: We'll wait.
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           MR. STOVALL: You do so at your own risk.
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           THE WITNESS: Yeah.
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           MR. STOVALL: You may be -- you know, if you think you
      can get your rig lined up in time to actually get your
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     drilling started between the 21st and the end of the month.
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           EXAMINER CATANACH: Mr. Kellahin, what I would suggest
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      is, if you determine in the interim period that you need to
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      start drilling the well, come see us and we'll -- we'll
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      talk to the director and we'll get something verbal for
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      you.
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           MR. KELLAHIN: All right.
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           EXAMINER CATANACH: Okay. That being the case, we'll
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      go ahead and continue and readvertise this case to the
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      March 21st hearing.
           THE WITNESS: Thank you, gentlemen.
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           EXAMINER CATANACH: Thank you, sir.
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           (The foregoing hearing was concluded at the
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      approximate hour of 11:30 a.m.)
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1 2 STATE OF NEW MEXICO 3 SS. COUNTY OF SANTA PE 4 5 REPORTER'S CERTIFICATE 6 7 8 I, PAULA WEGEFORTH, a Certified Court Reporter and 9 Notary Public, DO HEREBY CERTIFY that I stenographically 10 reported these proceedings before the Oil Conservation 11 Division; and that the foregoing is a true, complete and 12 accurate transcript of the proceedings of said hearing as 13 appears from my stenographic notes so taken and transcribed 14 under my personal supervision. 15 I FURTHER CERTIFY that I am not related to nor 16 employed by any of the parties hereto, and have no interest 17 in the outcome hereof. 18 DATED at Santa Fe, New Mexico, this 20th day of March, 19 1991. 20 21 22 PAULA WEGEFORTH My Commission Expires: Certified Court Reporter September 27, 1993

CSK NO. 204, in the foregoing is CSR No. 264, Notary Public 23 a complete record of the proceedings in 24 the Examiner hearing of Case No. 10348 25 heard by me on February 21 , Examiner Oil Conservation Division