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NEW MEXICO OIL CONSERVATION DIVISION
STATE LAND OFFICE BUILDING
STATE OF NEW MEXICO
CASE NO. 10811

IN THE MATTER OF:

The Application of Giant Exploration
and Production Company for an
Unorthodox Oil Well Location,
Santa Fe County, New Mexico.

BEFORE:

MICHAEL E. STOGNER
Hearing Examiner
State Land Office Building
Thursday, September 23, 1993

REPORTED BY:

CARLA DIANE RODRIGUEZ
Certified Court Reporter
for the State of New Mexico



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ORIGINAL

A P P E A R A N C E S

FOR THE NEW MEXICO OIL CONSERVATION DIVISION:

ROBERT G. STOVALL, ESQ.

General Counsel
State Land Office Building
Post Office Box 2088
Santa Fe, New Mexico 87504-2088

FOR THE APPLICANT:

TANSEY, ROSEBROUGH, GERDING & STROTHER, P.C.
Post Office Box 1020
Farmington, New Mexico 87401-1020
BY: TOMMY ROBERTS, ESQ.

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1 EXAMINER STOGNER: The hearing will
2 come to order. Call next case, No. 10811.

3 MR. STOVALL: Application of Giant
4 Exploration & Production Company for an
5 unorthodox oil well location, Santa Fe County,
6 New Mexico.

7 EXAMINER STOGNER: Call for
8 appearances.

9 MR. ROBERTS: Mr. Examiner, my name is
10 Tommy Roberts. I'm an attorney practicing with
11 the Tansey Law Firm in Farmington, New Mexico.
12 I'm appearing on behalf of the Applicant, Giant
13 Exploration and Production Company, and I have
14 one witness to be sworn.

15 EXAMINER STOGNER: Are there any other
16 appearances in this matter?

17 Will the witness please stand to be
18 sworn.

19 **ALAN P. EMMENDORFER**

20 Having been first duly sworn upon his oath, was
21 examined and testified as follows:

22 EXAMINATION

23 BY MR. ROBERTS:

24 Q. State your name and your place of
25 residence.

1 A. My name is Alan P. Emmendorfer, and I
2 live in Farmington, New Mexico.

3 Q. By whom are you employed?

4 A. I work for Giant Exploration and
5 Production Company in Farmington.

6 Q. In what capacity?

7 A. As a petroleum geologist.

8 Q. How long have you been employed by
9 Giant in that capacity?

10 A. For approximately three and a half
11 years.

12 Q. Have you testified before the Oil
13 Conservation Division on any prior occasion?

14 A. Yes, I have.

15 Q. In what capacity?

16 A. As a petroleum geologist.

17 Q. Were your qualifications as an expert
18 in the field of petroleum geology accepted and
19 made a matter of record at that time?

20 A. Yes, they were.

21 Q. Are you familiar with the application
22 in this case?

23 A. Yes, I am.

24 Q. Have you prepared certain exhibits to
25 be submitted in conjunction with your testimony?

1 A. Yes

2 MR. ROBERTS: Mr. Examiner, I would
3 tender Mr. Emmendorfer as an expert in the field
4 of petroleum geology.

5 EXAMINER STOGNER: Mr. Emmendorfer is
6 so qualified.

7 Q. Mr. Emmendorfer, would you briefly
8 describe the purpose of this application?

9 A. Yes. Mr. Examiner, Giant seeks
10 approval with this hearing for the drilling of an
11 unorthodox oil well located 1300 feet from the
12 south line and 1000 feet from the west line of
13 Section 10, Township 20 North, Range 9 East,
14 Santa Fe County, New Mexico.

15 The well is to test the Pennsylvanian
16 formation, and the southwest quarter of the
17 southwest quarter of Section 10 is to be
18 dedicated to this well.

19 Q. Is the Pennsylvanian formation an oil
20 producing formation?

21 A. There have been oil shows in the
22 Pennsylvanian. In Santa Fe County there is no
23 commercial production at this time.

24 Q. When does Giant intend to spud this
25 well?

1 A. This fall.

2 Q. What is the current status of your
3 application for permit to drill?

4 A. It is with the BLM, and they're
5 currently looking over it to go ahead with the
6 approval.

7 Q. Is it fair to describe this proposed
8 operation as a wildcat operation?

9 A. Yes, very much so.

10 Q. Would you refer to what you've marked
11 as Exhibit No. 1. Identify that exhibit and
12 identify the material depicted there that's
13 relevant to this case.

14 A. Exhibit No. 1 is a land map, Township
15 20 North, Range 9 East, Santa Fe County, New
16 Mexico. Each of the numbered squares are
17 government sections.

18 The outline of Giant's leasehold is the
19 heavy, dark, dashed line. Color-coded are three
20 leases currently held by Giant in the township.
21 The large lease colored in purple is a government
22 lease, which is where the proposed well is
23 located.

24 On this map it is shown by a circle
25 with an arrow and a flag, calling it the

1 "Española No. 1 Proposed Location."

2 In addition, Giant holds two other
3 leases, one in Section 16, which is colored in
4 orange. It's a State of New Mexico lease. And
5 in Section 21, color-coded in green is another
6 State of New Mexico lease.

7 Q. What are the statewide rules for
8 spacing of the Pennsylvanian formation in this
9 area?

10 A. Statewide rules are for 40-acre
11 spacing.

12 Q. Your testimony has been that all of the
13 acreage, which is colored on Exhibit No. 1, in
14 any color, is 100-percent Giant leasehold, is
15 that accurate?

16 A. Yes, that's correct. Giant owns 100
17 percent working interest in all three leases.

18 Q. Then I assume that you've given no
19 notice to any offsetting operators of this
20 hearing?

21 A. No. The rules state that offsetting
22 40-acre operators need to be notified, and since
23 Giant is the operator involved in the offsetting
24 40-acres, no additional parties were notified.

25 Q. So, in your opinion, the requirements

1 for notification set forth by the Oil
2 Conservation Division have been satisfied?

3 A. Yes, they have.

4 Q. Would you refer to what's been marked
5 as Exhibit No. 2 and identify that exhibit?

6 A. Exhibit No. 2 is a plat of a portion of
7 Exhibit No. 1, color-coded in the same manner. I
8 would ask you to pay attention to the fact that
9 these are not sections, but they're quarter
10 sections. The southwest of 10, the southeast of
11 9 and the northwest of 15 are purple, and there's
12 a portion of the state lease referred to in
13 Exhibit No. 1.

14 The northeast of Section 16 is a state
15 lease that's similarly colored orange. The
16 proposed unorthodox location is shown by the
17 green dot, at a distance of 1300 feet from the
18 south line, 1000 feet from the west line of the
19 southwest quarter of Section 10.

20 In addition, there are a number of
21 squares representing the drilling windows that
22 are set up by statewide wildcat rules for this
23 area.

24 Q. And what are the setback requirements
25 for standard locations, statewide rules?

1 A. Okay. The setbacks, set up by
2 statewide rules for this area, are 330 feet from
3 any governmental quarter/quarter boundary.

4 Q. On this exhibit, why do you illustrate
5 the windows for standard locations in the
6 offsetting quarter/quarter sections?

7 A. Well, in the event that commercial
8 protection is found in this well, additional
9 development drilling does take place. Statewide
10 rules provide that the other wells should be
11 within these drilling windows, and that no well
12 shall be within 330 feet of any other producing
13 well.

14 This would show that if the other wells
15 are put within the drilling windows, they would
16 still be within the state rules, offset from a
17 producing well from that same horizon.

18 Q. Now refer to what you've labeled as
19 Exhibit No. 3, and identify that exhibit.

20 A. Exhibit No. 3 is a drilling activity
21 map in the area surrounding the Espanola No. 1
22 proposed location. The scale is a little
23 different.

24 Each of the squares, again, are
25 governmental sections. A square mile. There are

1 approximately four townships noted on this map.
2 Giant's leasehold in Township 20 North, Range 9
3 East, is outlined in the same dark, hatched
4 line. The Espanola No. 1 well proposed location
5 is identified by the green-colored circled,
6 flagging, and the title.

7 In addition, the only two wells that
8 were drilled in this four-township area are noted
9 by the dry holes, colored red. I would point out
10 that Township 21 North, 9 East, the E.M. Elliot
11 No. 1 well, was drilled in Section 26 back in the
12 early 30s.

13 The only other well drilled in the area
14 was drilled approximately one mile to the east of
15 the proposed location, in Section 11 of Township
16 20 North, Range 9 East, by Castle and Wigzell,
17 called the Kelley Federal #1.

18 In addition, I've identified on this
19 map the seismic traces that Giant shot seismic in
20 this area earlier, a few years ago, in 1989. The
21 purpose of this exhibit is to show that this is a
22 rank wildcat, and there's very little geological
23 subsurface data to aid in the placement of the
24 well.

25 Q. What was the objective depth of the

1 E.M. Elliot No. 1 well, in Section 26 of 21
2 North, 9 East?

3 A. They drilled to a total depth in the
4 Pennsylvanian, I believe, approximately 1700
5 feet.

6 Q. And the same question applicable to the
7 Castle and Wigzell, Kelley Federal #1, and that's
8 in Section 11, of Township 20 North, 9 East.

9 A. That well drilled to an approximate
10 total depth of 2700 feet, and TD'd also in the
11 Pennsylvanian section

12 Q. Just a point of clarity, how are the
13 seismic shot lines depicted on this exhibit?

14 A. The shot points are, every fifth shot
15 point is depicted by a small circle, and every
16 twentieth shot point is identified by a small
17 number, such that the Espanola No. 1 is staked
18 right adjacent to Shot Point No. 160.

19 Q. Why have you deemed it unsatisfactory
20 to drill at a standard location?

21 A. Well, because this is a wildcat and
22 there's very little subsurface data, we shot
23 seismic in the area based on that subsurface data
24 and some gravity modeling that we did. The area
25 has very rugged topography, and we had to design

1 our seismic program to follow that topography.

2 The seismic data that we've received
3 from the line the Espanola No. 1 is located on,
4 was rather surprising and revealing, and really
5 set up the prospect, as we see it, and we feel
6 that to properly evaluate the subsurface, when we
7 drill this well, that we would need to run wire
8 line logs, such as the sonic log, that we could
9 then create a synthetic seismogram, tie directly
10 back to the seismic line, to aid in the
11 interpretation of the subsurface, both at the
12 wellbore and at adjoining areas.

13 Q. Is it your opinion that there's no
14 standard location that is geologically sound?

15 A. Well, we really don't know exactly what
16 we have off the seismic line. There's a number
17 of faults that are shown subsurface by the
18 seismic lines. It's a rank wildcat area and we
19 just don't know what we have away from that
20 seismic line.

21 It's not unusual, in these situations,
22 to stake your well directly on a seismic line.
23 If we drilled it at a standard location and later
24 wanted to run additional seismic, because of
25 state rules applying to the closeness of

1 additional seismic lines to a producing well, we
2 wouldn't be able to tie our data directly to the
3 line, and that's pretty important for geophysical
4 analysis.

5 Q. Exhibit No. 4 is a topographical map of
6 a nine-section area, eight of those sections
7 surrounding the section in which this proposed
8 location is situated.

9 What role does topography play in your
10 selection in this proposed site?

11 A. Okay. As stated, this plat is of a
12 topo map of the area. It's very rugged. The
13 contour intervals are 20-foot contours.

14 Again, the proposed location is
15 highlighted in green, and the Kelley Federal dry
16 hole is highlighted in red.

17 As in the previous exhibit, the seismic
18 line is shown by every fifth shot point, by the
19 small circles. As you can see, there's a major
20 wash that is running through Section 9, into
21 Section 10, and on into Section 11.

22 When Giant shot the seismic program in
23 1989, they were careful in reducing the amount of
24 environmental damage to this surface in this
25 area. And all four of our lines were shot up to

1 these major drainages, which also, all the roads
2 into the area follow these drainages.

3 Q. Does this proposed location help to
4 minimize surface disturbance associated with
5 roads that access into the location?

6 A. Yes, it does. The seismic line, as I
7 stated previously, was shot along the road, which
8 sometimes was in the drainage and sometimes just
9 adjoining it.

10 The proposed location is staked on the
11 seismic line, on the road, and a portion of the
12 location would fall on a reclaimed borrow pit.
13 Downstream a little ways, the Bureau of
14 Reclamation built a diversion dam and used
15 material from the area to build the dam. And our
16 location is partially on this reclaimed land, so
17 no new disturbances would need to be taken into
18 account.

19 Q. Briefly summarize why, in your opinion,
20 this application should be granted.

21 A. Well, if we are allowed to drill at
22 this location, then we could more effectively use
23 all the subsurface information gained from this
24 well to effectively get a better picture of the
25 subsurface reservoir.

1 If commercial production is found and
2 additional wells are necessary, we would have a
3 better picture of the subsurface. We would be
4 able to better plan our development program, and
5 limit the number of wells that will need to be
6 drilled.

7 Q. In your opinion, will the granting of
8 this application be in the best interests of
9 conservation and result in the prevention of
10 waste and the protection of correlative rights?

11 A. Yes, I do.

12 Q. Were Exhibit Nos. 1 through 4 either
13 prepared by you or at your direction or under
14 your supervision?

15 A. Yes, they were.

16 MR. ROBERTS: I would move the
17 admission of Exhibit Nos. 1 through 4 on behalf
18 of the Applicant.

19 EXAMINER STOGNER: Exhibits 1 through 4
20 will be admitted into evidence.

21 MR. ROBERTS: I have no other questions
22 for this witness.

23 EXAMINATION

24 BY EXAMINER STOGNER:

25 Q. Going back to Exhibit No. 3, it appears

1 that your seismic line appears to be somewhat
2 curved, as opposed to going either due south or
3 north or due east or west. Did that follow that
4 wash that you referred to in Exhibit 4?

5 A. Yes, it did. Well, there's county
6 roads which pretty much parallel the wash to the
7 western portion of the seismic line.

8 This area is in the Sombrillo Surface
9 Management area, and they're concerned about
10 vertebrate fossils in the area, so we tried to
11 minimize surface disturbance as much as possible.

12 Q. Is this near that county road, did you
13 say?

14 A. Well, the western portion of the
15 seismic line follows the county line. The county
16 road ends in Section 9, just west of where it
17 says Township 20 North, and there are grazing
18 roads that follow that wash into the BLM surface,
19 which is in the east half of Section 9, all of
20 Section 10 and 11, 15 and 14.

21 Q. Has the surface location been inspected
22 by the U.S. BLM, or been staked?

23 A. Yes, we staked the well in the latter
24 part of July. At that time, the BLM was there to
25 do their surface on site, and they also brought

1 their vertebrate paleontologist. As I mentioned
2 earlier, this is in what's known as the Sombrillo
3 Surface Management area, and the area has
4 significant vertebrate fossils that have been
5 collected over the last 60 years, and it's a
6 fairly unique collection for those types of
7 fossils, and they've given the okay to place a
8 well at this location.

9 Q. What BLM area office or district
10 office, if you will, of the BLM, handles this
11 area?

12 A. It's the Taos Resource area.

13 Q. That's who the APD will be going to?

14 A. I believe that's correct. We sent them
15 both to the Albuquerque and to the Taos District.

16 Q. The total depth of this well will be?

17 A. We're projecting it to 5400 feet.

18 Q. What's your proposed casing program,
19 surface and intermediate?

20 A. We have, if production casing is set,
21 we have four strings that will be set. We
22 have--let me--

23 Q. Right now I'm mostly concerned about
24 surface.

25 A. Okay. Well, we've got a conductor

1 pipe, and I was going to check the APD. It's
2 either 60 or 90 feet. And then we're wanting to
3 set a 2000-foot string to protect any fresh water
4 resources into groundwater.

5 I believe that the deepest water well
6 of any of the residents downdip from us is 600
7 feet

8 EXAMINER STOGNER: Any other
9 questions?

10 MR. STOVALL: I have just a couple.

11 EXAMINATION

12 BY MR. STOVALL:

13 Q. These leases that are identified on
14 Exhibit 1 are all, 100 percent, Giant leases, is
15 that correct?

16 A. Yes, sir.

17 Q. Has Giant, assuming you have success
18 with this wildcat, has Giant got a development
19 plan out here? Do you kind of know where you're
20 going to go if you find a well here? because it's
21 not easy country to drill in.

22 A. No, it's not. During the on site, one
23 of the local residents asked the BLM if they were
24 going to perform an environmental assessment, and
25 they said for the initial well, no, it wasn't

1 necessary, because of the placement of the well.
2 If a discovery is made and the development of the
3 field would take place, then an environmental
4 assessment would be required.

5 Giant, when we originally shot the
6 seismic, we tried to minimize the surface damages
7 and keep exploration costs down, so we didn't
8 shoot a lot of seismic.

9 However, if commercial production is
10 found at the well, we're prepared to shoot
11 additional seismic, you know, being aware of the
12 environmental damage that could be done by any
13 additional seismic. We'll take that into account
14 in planning our seismic program.

15 Q. Has Giant considered the possibility of
16 coming to the Division and getting some sort of
17 special rules for this lease that would give you
18 some freedom to put wells where they would make
19 sense, geologically and topographically, rather
20 than adhere to what are the current statewide
21 rules in the area?

22 A. Well, as I testified earlier, in plat
23 No. 2, the statewide rules for any offsetting
24 wells, barring any special pool rules, are the
25 330-acre offsets.

1 Q. I understand that. What I'm suggesting
2 to you is that you might, in your development, go
3 back and say, and forget about those little boxes
4 you've drawn on your map, where does it make
5 sense to put wells to get development with the
6 kind of spacing you need but not necessarily
7 within those boxes, as kind of a lease unitized
8 development?

9 A. Yes, I think that that's probably going
10 too far into the future. We need to make the
11 initial wildcat well first.

12 But we're very aware that, perhaps,
13 special pool rules may need to be taken into
14 account and asked for from the state at any
15 future development time.

16 MR. STOVALL: I have nothing further.

17 EXAMINER STOGNER: Any other questions
18 of this witness?

19 MR. ROBERTS: No, sir.

20 EXAMINER STOGNER: If not, he may be
21 excused, and Case 10811 will be taken under
22 advisement.

23 Let's take a 15-minute recess.

24 (And the proceedings concluded.)

25 I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. 10811,
heard by me on 23 Sept. 1993.



Examiner

1 CERTIFICATE OF REPORTER

2
3 STATE OF NEW MEXICO)
4) ss.
COUNTY OF SANTA FE)

5
6 I, Carla Diane Rodriguez, Certified
7 Court Reporter and Notary Public, HEREBY CERTIFY
8 that the foregoing transcript of proceedings
9 before the Oil Conservation Division was reported
10 by me; that I caused my notes to be transcribed
11 under my personal supervision; and that the
12 foregoing is a true and accurate record of the
13 proceedings.

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

19 WITNESS MY HAND AND SEAL October 4,
20 1993.

21
22
23 
24 CARLA DIANE RODRIGUEZ, RPR
25 CCR No. 4