

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION  
State Land Office Building  
Santa Fe, New Mexico

2 July 1985

EXAMINER HEARING

IN THE MATTER OF:

Application of Benson-Montin-Greer      CASE  
Drilling Corp. for compulsory pooling      6636  
and an unorthodox well location, Rio  
Arriba County, New Mexico.

BEFORE: Gilbert P. Quintana, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation      Jeff Taylor  
Division:      Legal Counsel to the Division  
Oil Conservation Division  
State Land Office Bldg.  
Santa Fe, New Mexico 87501

For BMG Drilling:      William F. Carr  
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## I N D E X

## ALBERT R. GREER

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## E X H I B I T S

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Greer Exhibit Two, Letter 10

Greer Exhibit Three, Plat 14

1  
2 MR. QUINTANA: We'll call next  
3 Case 8636.

4 MR. TAYLOR: The application of  
5 Benson-Montin-Greer Drilling Corp. for compulsory pooling  
6 and an unorthodox well location, Rio Arriba County, New Mex-  
7 ico.

8 MR. CARR: May it please the  
9 Examiner, my name is William F. Carr, with the law firm  
10 Campbell and Black, P. A., of Santa Fe, appearing on behalf  
11 of Benson-Montin-Greer Corporation.

12 I have one witness who needs to  
13 be sworn.

14 MR. QUINTANA: Are there any  
15 other appearances in the case?

16 If not, sir, will you stand and  
17 be sworn in at this time?

18  
19 (Witness sworn.)  
20

21 ALBERT R. GREER,  
22 being called as a witness and being duly sworn upon his  
23 oath, testified as follows, to-wit:  
24  
25

## DIRECT EXAMINATION

BY MR. CARR:

Q Will you state your full name and place of residence?

A Albert R. Greer, Farmington, New Mexico.

Q Mr. Greer, by whom are you employed and in what capacity?

A Benson-Montin-Greer Drilling Corp. I'm the engineer and also President of the corporation.

Q Have you previously testified before this Division and had your credentials accepted and made a matter of record?

A Yes, sir.

Q Were you qualified at that time as a petroleum engineer?

A Yes, sir.

Q Are you familiar with the application filed in this case on behalf of Benson-Montin-Greer Drilling Corporation?

A Yes, sir.

Q And are you familiar with the subject area?

A Yes, sir.

MR. CARR: We tender Mr. Greer as an expert witness in petroleum engineering.

1 MR. QUINTANA: He's considered  
2 an expert witness.

3 You may proceed.

4 Q Mr. Greer, will you briefly state what is  
5 being sought in this case?

6 A Yes, sir. We desire to drill a well on a  
7 standard proration unit in the West Puerto Chiquito Mancos  
8 Pool, of which the working interests are owned by parties  
9 who have committed their interest to the Canada Ojitos Unit  
10 Agreements, with the exception of one party, Mountain States  
11 Natural Gas Corporation, who we have been unable to success-  
12 fully communicate, and accordingly we need the forced pool-  
13 ing order in order to proceed with drilling of the well.

14 Q Are you also seeking approval of an unor-  
15 thodox location for the well on the spacing unit?

16 A Yes, sir.

17 Q Would you please refer to what has been  
18 marked as Benson-Montin-Greer Exhibit Number One and refer  
19 to the first map following Tab A in that exhibit, identify  
20 this, and review it for Mr. Quintana?

21 A This plat is an orientation plat. It  
22 shows both the East and West Puerto Chiquito Pools and the  
23 outline of the Canada Ojitos Unit within the West Puerto  
24 Chiquito Mancos Pool.

25 The West Puerto Chiquito Mancos Pool is

1 outlined in yellow.

2 The Canada Ojitos Unit is outlined in  
3 red.

4 A north/south green line on the west side  
5 of the unit divides the Canada Ojitos Unit between the par-  
6 ticipating area on the east and the Third Expansion Area  
7 which has not yet been brought into participation on the  
8 west, and in the west area, which is the Third Expansion  
9 Area, is located the proration unit on which we would like  
10 to drill a well in Section 29, Township 25 North, Range 1  
11 West. That section is colored in red on this plat.

12 Q Is the proposed well also indicated on  
13 this plat?

14 A Yes, sir. Shown on Section 29 is the lo-  
15 cation of the proposed well.

16 Q And what is the spacing for the Puerto  
17 Chiquito Mancos Pool?

18 A 640 acres.

19 Q Would you now go to the next exhibit in  
20 the -- next page in Exhibit One and identify that and review  
21 that, please?

22 A The second plat on -- under Section A is  
23 a type log which identifies the -- or on which is identified  
24 the vertical limits of the West Puerto Chiquito Mancos Pool.  
25 Namely, it's the Niobrara member of the Mancos formation.

1                   Also we show here, or can be seen here,  
2   that the zones which are unitized within the West Puerto  
3   Chiquito Mancos Pool in the Canada Ojitos Unit, includes at  
4   a minimum the Niobrara member, the Carlile member, and the  
5   Greenhorn member of the Mancos formation, so the unitized  
6   portion as to the working interest, includes more than the  
7   vertical limits of the pool.

8                   Q           And would you tell the Examiner exactly  
9   the interval which you are seeking be force pooled in this  
10  case?

11                  A           Yes, sir, it's the Niobrara member of the  
12  Mancos, which is -- comprises the vertical limits of the  
13  West Puerto Chiquito Mancos Pool.

14                  Q           And it's depicted on this cross section.

15                  A           And it's shown on that cross section.

16                               MR. CARR: Mr. Quintana, when  
17  the application was filed, it was filed seeking an order  
18  pooling all interests from the surface to the base of the  
19  Mancos.

20                               We would like to amend that ap-  
21  plication to include only the Niobrara member at this time,  
22  as shown on this page of Exhibit Number One.

23                  A           As shown on this cross section for the  
24  log on the lefthand side, identified as Bolack-Greer No. 1  
25  Bolack --

1 MR. QUINTANA: From the depth  
2 of 6968 to the depth of 7865?

3 A That is correct. Now these vertical  
4 limits, of course, are set out in other orders of the Com-  
5 mission in years past. We include them here, of course,  
6 just for completeness of the record.

7 Q And this is the proposed objective in the  
8 well which you plan to drill.

9 A Yes, sir.

10 Q Would you now go to the first plat after  
11 Tab B in Exhibit Number One, identify that, and review it,  
12 please?

13 A This plat is a plat of Exhibit A of the  
14 Third Expansion Area of the Canada Ojitos Unit. It's a land  
15 plat which shows the tract numbers and the lease numbers of  
16 the leases under the proposed unit.

17 The proposed spacing unit, Section 29 in  
18 25 North, 1 West, is outlined by a red dashed line and  
19 colored on that is the one tract which we have been unable  
20 to obtain commitment to drilling the well. That's the  
21 northeast quarter of the southeast quarter of Section 29.  
22 That's a Federal lease, NM 03747, shown on the records to be  
23 owned by Mountain States Natural Gas Company.

24 All of the rest of the leases, the num-  
25 bers of the other leases within the unit, have committed



1 their interest to the unit agreement and have agreed to  
2 drill a well.

3 Q Mr. Greer, would you now go to the first  
4 page following Tab C in Exhibit One and review the figures  
5 set forth on that portion of the exhibit?

6 A This shows the ownership, working inter-  
7 est ownership of the well which would be to the Canada Oji-  
8 tos Unit Committed Working Interests, 96.875 percent, and  
9 Mountain States Natural Gas, 3.125 percent.

10 Q And so the 96.875 percent is voluntarily  
11 committed to the proposed well.

12 A Yes, sir.

13 Q Would you go to the next page, please?

14 A The next two pages are a memo from Schutz  
15 Abstract Company, which we requested to determine what the  
16 Federal records showed ownership to be of some of the  
17 tracts.

18 This particular tract is shown on the  
19 second sheet. It's identified as Page 5 of the Schutz Ab-  
20 stract Company note of March 6, 1984, in which for Lease NM  
21 03747, ownership is shown to be Mountain States Natural Gas  
22 Corp., one-half, and other parties, the remainder of the  
23 other parties have joined their interest to the unit.

24 Q Will you go to the next page?

25 A The next page, or next three pages, four

1 pages, colored in yellow, is a copy of the letter dated May  
2 14th, 1985, which was sent to Mountain States Natural Gas  
3 Corporation inviting them for about the tenth time to join  
4 the Canada Ojitos Unit, or in this instance in the alterna-  
5 tive to join in drilling of the well in Section 29.

6 Q Following that you have a copy of the re-  
7 ceipt showing the letter was in fact received by Mountain  
8 States?

9 A Yes, sir.

10 Q And then the next page, the green page?

11 A The green page is Mountain States' re-  
12 sponse, which, incidentally, this is the only response we  
13 have received from Mountain States Natural Gas Corp. in the  
14 last four or five years to any of our correspondence, and  
15 this is a wire which says simply, "Mountain States Natural  
16 Gas Corp. accepts your proposal in principal. Signed agree-  
17 ments will follow."

18 Now this we received a little over a  
19 month ago and since that time we have received no agree-  
20 ments. We've been unable to contact them by telephone.

21 Q Mr. Greer, I'd like to go out of order  
22 for a moment and ask you to just identify what has been mar-  
23 ked as Benson-Montin-Greer Exhibit Number Two.

24 A This is a letter from our attorney to  
25 Mountain States Natural Gas Corp. advising them of the ap-

1 application for unorthodox well location and for compulsory  
2 pooling, which, of course, is the subject of this hearing  
3 today, and they were sent a copy of the docket, advised that  
4 the hearing was set for today, Tuesday, July 2nd.

5 Q Does this also show the return receipt  
6 indicating it was received by Mountain States?

7 A Yes, sir.

8 Q Mr. Greer, in your opinion has Benson-  
9 Montin-Greer Drilling Corporation made a good faith effort  
10 to locate and obtain the voluntary joinder in this well of  
11 Mountain States Oil and Gas -- of Mountain States Natural  
12 Gas Corporation?

13 A Yes, sir, we have.

14 Q Would you now go to the first page after  
15 Tab D in Exhibit One and review this for Mr. Quintana?

16 A This is our Authority for Expenditure  
17 which we sent to all the parties of interest under the pro-  
18 posed well.

19 We sent one copy of this along with our  
20 letter of -- back in May to Mountain States Natural Gas  
21 Corp.

22 It shows estimated costs of about  
23 \$543,500.

24 Q Is it possible that there would be addi-  
25 tional costs over and above this if, in fact, you make a

ILLEGIBLE

1 well?

2 A Yes, sir. If it makes a well, there pro-  
3 bably will be -- we'll probably connect it to our gas  
4 gathering and gas lift system, our oil gathering system, and  
5 it probably would be required to pay its share of road main-  
6 tenance and improvements, which the Forest Service in which  
7 this land is located has -- has requested of us. So there  
8 could be some additional charges, but it will be less than  
9 \$100,000.

10 Q Are the costs as depicted on this AFE in  
11 line with what's charged for other wells in the area?

12 A Yes, sir.

13 Q And you have drilled other Mancos wells  
14 in this area?

15 A Yes, sir.

16 Q Would you now refer to the next page,  
17 which looks like a portion of an operating agreement.

18 A Yes, sir, this is a part of the operating  
19 agreement for the Canada Ogitos Unit, which is dated March  
20 1, 1981, and it sets out the overhead charges as of that  
21 date for both drilling and producing wells overhead.

22 Q And is this the operating agreement be-  
23 tween Benson-Montin-Greer and the other interest owners in  
24 this well?

25 A Yes, sir, uh-huh.

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1 Q And what are the figures as set out for  
2 overhead and administrative costs for a drilling well and  
3 also a producing well if, in fact, this is a producer?

4 A The current rates are shown on the next  
5 page, which are the rates shown on the operating agreement  
6 adjusted for the annual inflation or deflation factors.

7 Currently for a drilling well are charge  
8 is \$2200 a month; producing well, \$395.90.

9 Q And are these figures in line with other  
10 wells, charges for other wells in the area?

11 A Yes, sir.

12 Q And do you recommend that these figures  
13 be incorporated into any order which results from today's  
14 hearing?

15 A Yes, sir, I would.

16 Q Are you prepared to make a recommendation  
17 to the Examiner as to the risk penalty that should be asses-  
18 sed against Mountain States if they do not participate?

19 A Well, our operating agreement calls for a  
20 300 percent nonconsent provision, which I think equates to  
21 what the Division considers a 200 percent penalty, and I  
22 would recommend that.

23 Q Upon what do you base this risk penalty  
24 recommendation?

25 A Well, the formation that's being drilled

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1 is a fractured formation. The well productivities vary  
2 drastically and erratically from point to point. It's im-  
3 possible to predict ahead of time the kind of a well that  
4 will result.

5 Q In your opinion is it possible that the  
6 proposed well could turn out not to be a commercial success?

7 A Yes, sir.

8 Q Does Benson-Montin-Greer Drilling Corpor-  
9 ation seek to be designated operator of the proposed well?

10 A Yes, sir.

11 Q Would you please refer to what has been  
12 marked as Benson-Montin-Greer Exhibit Number Three and iden-  
13 tify that, please, for Mr. Quintana?

14 A This is a survey plat showing the loca-  
15 tion of the -- the proposed location of the well, setting  
16 out the footages, 393 feet from the north line and 2367 from  
17 the east line, which makes it an unorthodox location.

18 Q And who controls the offsetting acreage?

19 A The offsetting acreage, the working in-  
20 terest ownership is owned all by the Canada Ojitos Unit own-  
21 ers and Mr. Blair -- Natural -- Mountain States Natural Gas  
22 Corp., let me correct that.

23 Mr. Blair, I believe, is the president.

24 Q Mr. Greer, do you have anything further  
25 to add to your testimony?

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1 A No, sir.

2 Q In your opinion will granting this appli-  
3 cation be in the best interest of conservation, the preven-  
4 tion of waste, and the protection of correlative rights?

5 A Yes, sir.

6 Q Were Exhibits One through Three prepared  
7 by you or compiled under your direction and supervision?

8 A Yes.

9 MR. CARR: At this time, Mr.  
10 Quintana, we offer into evidence Benson-Montin-Greer Drill-  
11 ling Corporation Exhibits One through Three.

12 MR. QUINTANA: Exhibits One  
13 through three will be accepted as evidence.

14 MR. CARR: That concludes my  
15 direct examination of Mr. Greer.

16

17 CROSS EXAMINATION

18 BY MR. QUINTANA:

19 Q Mr. Greer, this proposed well you're  
20 going to drill, are there other wells in this vicinity that  
21 are completed in the same proposed interval?

22 A Yes, sir.

23 Q And if there are, how close are they and  
24 were they a commercial success or not?

25 A The plat under Exhibit A that we were

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1 looking at, shows a well to the east about a mile and a  
2 half, identified as the C-34.

3 That well had initial productivity of ap-  
4 proximately 400 barrels a day actual deliverability, or ac-  
5 tual produced in the line.

6 Just south of that the L-3, which is an  
7 offset location, had a productivity about 40 barrels a day.

8 Turning to the southwest of that loca-  
9 tion, the K-8 Well in Section 8, 24 North, 1 West, is a well  
10 just recently brought on production this spring. It has a  
11 productivity of about 15 to 20 barrels per day.

12 Going back to the northwest in Section  
13 31, the K-31 in Section 31 of 25 North, 1 West, is just re-  
14 cently being completed and appears to have a productivity of  
15 about 10 barrels a day.

16 The B-32 in Section 32, 25 North, 1  
17 West, direct south offset to this location, has a high capa-  
18 city recovery, producing about 500 barrels per day.

19 I might say that the fact that the offset  
20 location has a high capacity does not necessarily mean that  
21 this well on Section 29 would have a high capacity, and to  
22 -- to support that, I would point out in Section 11 of 25,  
23 11, the P-11 Well had initial productivity of about 500 bar-  
24 rels a day, whereas the 40-acre offset to the south, the A-  
25 14, had initial productivity of about 60 barrels a day.



1                   The A-14 had junk in the hole. It was  
2 sidetracked about 100 feet with another -- with a sidetrack  
3 hole, and that hole showed nothing natural. After frac  
4 treatment it came back to about 50 or 60 barrels a day.

5                   It's a very erratic formation. There's  
6 just no way to forecast ahead of time whether you'll have a  
7 really high capacity well or an extremely small one.

8                   Q           What information did you use to pick that  
9 location?

10                  A           Oh, the -- unfortunately I didn't bring  
11 any geologic maps. The -- this particular unit produces  
12 from the fractured Nibrara formation, the middle of the Man-  
13 cos formation. It dips from the east side of the unit to  
14 the west side. We have found, particularly from  
15 interference tests run in 1965, that a good part of the re-  
16 servoir has high capacity and -- and it has a high enough  
17 capacity that the reservoir can be produced under gravity  
18 drainage with commercial rates of production.

19                           That being the case, and the fact that  
20 the other method of production to which we would be reduced  
21 if we did not take advantage of gravity drainage, would be  
22 solution gas drive.

23                           Under solution gas drive the recovery is  
24 approximately five to six percent of the oil in place.

25                           Under gravity drainage we're anticipating

1 fifty to sixty percent; some ten times as much oil in place,  
2 oil that can be recovered if we can take advantage of grav-  
3 ity drainage.

4 In order to take advantage of gravity  
5 drainage, we felt like it was necessary to keep as much of  
6 the gas in solution as possible. One way to do that is  
7 maintain pressure and so to do that, we instituted a pres-  
8 sure maintenance project in 1969, about 17 years ago.

9 So from that time until now, and we still  
10 are conducting that pressure maintenance project, we gather  
11 all the gas from the produced wells; we buy make-up gas; and  
12 we keep the pressure very near the bubble point of the oil,  
13 and we found that intermediate wells between the gas injec-  
14 tion wells up dip and the producing wells down dip really  
15 just are kind of unnecessary wells. About all we'd use them  
16 for are observation wells.

17 And so with this third expansion area,  
18 which is on the down dip side of the unit, we are continuing  
19 the development by drilling only these down dip wells, and  
20 so our plan when the third expansion area was -- was brought  
21 into being a few years ago, was to drill initially four or  
22 five wells and then depending on the outcome of those wells  
23 to determine the future locations then of the wells that are  
24 required and still have commercial production rates, and so  
25 we're just kind of groping along on the down dip side trying

1 to -- to locate the best place for the ultimate recovery  
2 wells.

3 Q So from your exploration, I think, and  
4 what I got out of your explanation is that you picked up  
5 wellsites, you're willing to spend half a million dollars on  
6 that well, picked it up, offset production and the fact that  
7 you're trying to find exactly where the best position is off  
8 that production --

9 A The best place down dip, and in seeking  
10 that, you see, that simultaneously we have drilled, practi-  
11 cally simultaneously, the well in Section 8, two miles north  
12 of this proposed location. It's currently being completed.

13 The other three wells in Sections 31, 32,  
14 and Section 8, just south of this proposed location, we have  
15 decided that the well in Section 31 is too far to the west;  
16 the one in Section 8 is too far to the south; the well in  
17 Section 8 of 25, 1 West, is still indeterminate. but the  
18 logical thing we think to do is now to move north from the  
19 B-32 Well towards the J-8 and probably on farther north, and  
20 that will be our general plan of development.

21 It makes sense to go from the B-32 to  
22 Section 29, our pipeline, our main pipeline gathering system  
23 goes right by that well and the main roadwork which the For-  
24 est Service has required is through a north/south canyon  
25 which ends close to the B-32, then moves north, and so just

1 all general, practical things, it's a good way to move.

2 Q Vis-a-vis, what I was trying to get at,  
3 Mr. Greer, is it Mr. Grear?

4 A Yes, sir.

5 Q Was that as a hearing examiner, you know,  
6 it's -- 200 percent, we can consider 200 percent as a maxi-  
7 mum risk penalty. That's maximum.

8 A Uh-huh.

9 Q Maximum risk and maximum penalty. It  
10 seems that you did not bring any type of geological reports  
11 that would show how you -- why you positioned that there to  
12 explain why that would be maximum risk.

13 I was trying to get something out of you  
14 that would explain, give me a reason why I should assign it  
15 maximum risk.

16 I understand that -- that people, you  
17 know, that Mountain States has not answered your calls and  
18 they have not returned your letters, and returned that one  
19 thing, but it is my duty to assign a risk penalty based on  
20 what the actual risk is and not because they haven't coop-  
21 erated, you know. They may be -- they may be thinking,  
22 well, we'll let them compulsory pool us, but still it's not  
23 my duty to give maximum penalty if it's not legitimate.

24 So that's the reason I was asking that.

25 A If I might, if I might point out, there

1 have been one, two, three, four, five, there have been six  
2 wells drilled in this third expansion area so far.

3 Two of those were under forced pooling  
4 orders and in both instances the 200 percent penalty was --  
5 was ordered.

6 Q Were they commercial successes?

7 A One of them still has not been completed.  
8 The other is marginal. It's about a 15-barrel a day well.

9 Q Is that considered as commercial?

10 A Well, it's very marginal. It's commer-  
11 cial from the standpoint that the -- the Bureau of Land  
12 Management will allow it to be brought into a participating  
13 area.

14 It's not a very encouraging kind of -- of  
15 a well to want to drill additional wells nearby.

16 Q In your professional opinion do you anti-  
17 cipate making a commercial well with the B-29?

18 A Well, I'd have to anticipate that or not  
19 recommend it for anyone to drill it.

20 Q Thank you.

21 MR. QUINTANA: I have no fur-  
22 ther questions of the witness.

23 MR. CARR: But, Mr. Greer, is  
24 there a real chance that that well might not be commercial?

25 A Yes, sir, there's a real chance.

1 MR. QUINTANA: Any further  
2 questions of the witness?

3 Have we entered the exhibits?

4 MR. CARR: Yes, they've been  
5 introduced.

6 MR. QUINTANA: If not, he may  
7 be excused.

8 Case 8606 will be taken under  
9 advisement.

10 Oh, excuse me, 8636, I'm sorry.

11

12 (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 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. 8636 heard by me on JULY 2 1985.

Gilbert P. Quintana Examiner  
Oil Conservation Division