

1 STATE OF NEW MEXICO  
2 ENERGY AND MINERALS DEPARTMENT  
3 OIL CONSERVATION DIVISION  
4 STATE LAND OFFICE BLDG.  
5 Santa Fe, New Mexico

6  
7 8 April 1987

8 EXAMINER HEARING

9 IN THE MATTER OF:

10 Application of Meridian Oil Inc. for CASE  
11 an unorthodox location, Eddy County, 9116  
12 New Mexico.

13 BEFORE: Michael E. Stogner, Examiner

14  
15 TRANSCRIPT OF HEARING

16  
17 A P P E A R A N C E S

18  
19 For the Division: Jeff Taylor  
20 Legal Counsel to the Division  
21 Oil Conservation Division  
State Land Office Bldg.  
Santa Fe, New Mexico

22 For the Applicant:  
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MR. STOGNER: Call next Case  
No. 9116.

MR. TAYLOR: Application of  
Meridian Oil, Inc. for an unorthodox well location, Eddy  
County, New Mexico.

MR. STOGNER: At the request of  
the applicant Case No. 9116 will be continued to the  
Examiner Hearing scheduled for April 22, 1987.

(Hearing concluded.)

## C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO  
HEREBY CERTIFY the foregoing Transcript of Hearing before  
the Oil Conservation Division (Commission) 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.

I do hereby certify that the foregoing is  
a complete record of the proceedings in  
the Examiner hearing of Case No. 9114,  
heard by me on 8 April 1987.

[Signature], Examiner  
Oil Conservation Division

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION  
STATE LAND OFFICE BLDG.  
Santa Fe, New Mexico

22 April, 1987

EXAMINER HEARING

IN THE MATTER OF:

Application of Meridian Oil, Inc.,                   CASE  
for an unorthodox location, Eddy                   9116  
County, New Mexico.

BEFORE: Michael E. Stogner, Alternate Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

CONSERVATION DIVISION

JUN 11 1987

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For the Division:

Jeff Taylor  
Legal Counsel to the Division  
Oil Conservation Division  
State Land Office Bldg.  
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For the Applicant:

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I N D E X

TOM OLLE

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1  
2 MR. STOGNER: Call next Case  
3 Number 9116.

4 MR. TAYLOR: The application of  
5 Meridian Oil, Incorporated, for an unorthodox location, Eddy  
6 County, New Mexico.

7 MR. STOGNER: Call for appear-  
8 ances.

9 MR. KELLAHIN: If the Examiner  
10 please, I'm Tom Kellahin of Santa Fe, New Mexico, appearing  
11 on behalf of the applicant and I have one witness to be  
12 sworn.

13 MR. STOGNER: Are there any  
14 other appearances in this matter?

15 Would the witness please stand  
16 and be sworn?

17  
18 (Witness sworn.)

19  
20 MR. STOGNER: Mr. Kellahin.

21 MR. KELLAHIN: Thank you, Mr.  
22 Examiner.

23 Mr. Examiner, as a preliminary  
24 matter, I wish to submit to you my sworn affidavit in Case  
25 9116 with regards to the mailing of notices to offset opera-

1 tors that are affected by the requested unorthodox location  
2 and I have not marked that as an exhibit but would submit it  
3 to you for the case file.

4 MR. STOGNER: Thank you, Mr.  
5 Kellahin.

6  
7 TOM OLLE,  
8 being called as a witness and being duly sworn upon his  
9 oath, testified as follows, to-wit:

10

11

## DIRECT EXAMINATION

12 BY MR. KELLAHIN:

13 Q Mr. Olle, would you please state your  
14 name and spell your last name for the court reporter,  
15 please.

16 A Okay. My name is Tom Olle. That's O-L-  
17 L-E.

18 Q Mr. Olle, would you describe for the  
19 Examiner what it is that you do?

20 A I am the Regional Reservoir Engineer for  
21 Meridian Oil in Midland, Texas.

22 Q Would you describe for the Examiner when  
23 and where you received your degree in engineering?

24 A Okay, I graduated from the University of  
25 Texas as Austin in 1976 with a Bachelor's degree in

1 engineering.

2 Q Subsequent to graduation have you been  
3 employed as an engineer?

4 A Yes, sir.

5 Q And would you summarize for us the com-  
6 panies you have worked for, the capacity, and the general  
7 area of West Texas, southeastern New Mexico, or wherever  
8 that you've worked?

9 A Okay. After college I went to work for  
10 Gulf Oil in Odessa, Texas, as an operations and reservoir  
11 engineer.

12 After about three years I went to work  
13 for Cotton Petroleum in Midland as an engineer handling all  
14 phases of the business for about two years, and general geo-  
15 graphic on that was West Texas and southeast New Mexico.

16 I went from Cotton Petroleum in 1981 to  
17 Laguna Petroleum and was the Production Manager there from  
18 1981 till 1982, at which time I went to work for Southland  
19 Royalty Company.

20 I was transferred by Southland to Farm-  
21 ington, New Mexico, where I was the District Reservoir  
22 Engineer for about three years, prior to the merger with  
23 Meridian Oil. After the merger I was subsequently transfer-  
24 red back to Midland and have geographic responsibility of  
25 West Texas and southeast New Mexico.



1 Q As an engineer with Meridian Oil, Inc.,  
2 Mr. Olle, have you made a study of the facts surrounding  
3 this particular application?

4 A Yes, sir, I have.

5 Q Would you briefly state what Meridian is  
6 seeking to accomplish with this application?

7 A We'd like to have approved a nonstandard  
8 location for our Benson 3 Federal No. 1 Well.

9 Q And this is a well that's already been  
10 drilled, isn't it?

11 A Yes, sir, that is an oil well in the Ben-  
12 son Strawn Pool of Eddy County, New Mexico.

13 MR. KELLAHIN: At this time,  
14 Mr. Examiner, we tender Mr. Olle as an expert petroleum en-  
15 gineer.

16 MR. STOGNER: Mr. Olle is so  
17 qualified.

18 Q Mr. Olle, let me direct your attention to  
19 Exhibit Number One and have you identify and describe the  
20 information contained on that exhibit.

21 A This is some general information about the  
22 Benson 3 Federal No. 1. It was -- it's located 760 feet  
23 from the north line and 2080 feet from the east line of Sec-  
24 tion 3, Township 19 South, Range 30 East. It was spudded on  
25 the 14th of December and completed on the 24th of January,

1 1987, in the Strawn formation as an oil well potentialed for  
2 612 barrels of oil per day with a gas/oil ratio of about  
3 3000-to-1 and the well has currently gone on production re-  
4 cently at a rate of about 300 barrels a day and gas/oil  
5 ratio of about 2000-to-1.

6 Q Let's turn to Exhibit Number Two, Mr.  
7 Olle, and give the Examiner some of the background on the  
8 Benson Strawn Pool, and let me direct your attention first  
9 of all to Section 33 to the 160-acre tract that is  
10 designated in the yellow and then to the Yates Benson Deep  
11 No. 1 Well.

12 A All right.

13 Q Back in 1980 there was a hearing before  
14 the Commission with regards to the Benson Deep No. 1 Well.  
15 Would you summarize for the Examiner what the results of  
16 that hearing was in order to establish Benson Strawn Oil  
17 Pool rules?

18 A Yes, sir. Back in 1980 a hearing was  
19 held to set up the spacing for the Benson Strawn Pool and  
20 also to establish that it was an oil pool.

21 At that hearing data was given, including  
22 pvt analysis, which indicated that the fluid from the Benson  
23 Strawn was indeed an oil that exhibited a bubble point. The  
24 pool was subsequently spaced on 160-acre spacing. The final  
25 rules, I believe, were established during 1981 and it was

1 set up on 160-acre spacing.

2 Q Identify for us the Yates Benson Deep No.  
3 4 Well and the Yates Benson Deep No. 5 Well and tell us what  
4 has occurred with those wells.

5 A Subsequent to the completion of the Benson  
6 Deep No. 1, the Yates Benson Deep No. 4 was completed in  
7 the northwest quarter of Section 3, Township 19 South, Range  
8 30 East.

9 This well was completed back in about  
10 1983 or 4; has produced approximately 200,000 barrels of oil  
11 with a gas/oil ratio of slightly under 2000-to-1.

12 The Yates Benson Deep No. 5, which is in  
13 the northeast quarter of Section 4, same township and range,  
14 has -- was tested for approximately I believe it was 100  
15 barrels a day. It has never produced and is still a shut in  
16 well waiting on pipeline connection.

17 Q Let's have you identify the last of the  
18 four wells to be drilled in the Benson Strawn Pool, the Mer-  
19 idian Benson 3 Federal No. 1?

20 A Yes, sir. It's located in the northeast  
21 quarter of Section 3 and this was the well we had just des-  
22 cribed. It was spudded during December of 1986 and com-  
23 pleted in January of 1987.

24 Q This is the well for which you now seek  
25 an unorthodox well location?

1           A           Yes, sir.

2           Q           Let's summarize for the Examiner the po-  
3 sition of Yates with regards to the special request for mod-  
4 ification of rules in the Benson Strawn, as presented before  
5 Examiner Catanach back on March 18th.

6           A           Basically, Yates position was that this  
7 reservoir was not a Strawn oil reservoir but that it was a  
8 Strawn gas reservoir and should be so classified.

9                        Their No. 4 Well, when it was completed  
10 and went on production has been carried as an Eddy Undesig-  
11 nated Strawn gas well.

12                       Our review of the area, when we drilled  
13 our Benson 3 Federal No. 1, it was quite confusing to us in  
14 that the well we were offsetting, which was the Benson Deep  
15 No. 4, was a well that was at the current time producing  
16 about 200 barrels of oil a day with a gas/oil ratio of under  
17 2000--to-1, exhibited all the properties of a normal oil  
18 reservoir. The cumulative gas/oil ratio was less than 2000-  
19 to-1.

20                       The field, the Benson Strawn Field, which  
21 was set up in Section 33 with the drilling of the Benson  
22 Deep No. 1, was an oil well and an oil pool. The rules  
23 called for any Strawn well which was drilled within one mile  
24 of that location to be so classified as an oil well unless  
25 it was closer to another pool at the time it was drilled.

1 Our feeling was that it was an oil reservoir and that the  
2 No. 4 was just obviously an oversight and an error, and that  
3 the pool should continue to be an oil pool and that the only  
4 change in the rules should be that the top allowable should  
5 have been higher.

6 Q Let's discuss specifically what Meri-  
7 dian's position was in the Examiner Hearing on March 18th  
8 with regards to the special pool rules in the Benson Strawn  
9 Oil Pool.

10 Identify for the Examiner what the  
11 special rules required in terms of a top oil allowable for  
12 that pool.

13 A The top oil allowable for the Benson  
14 Strawn Pool as set up by the Benson Deep No. 1 was 70 bar-  
15 rels of oil per day.

16 Q What was the gas/oil ratio?

17 A With a gas/oil -- I do not believe it was  
18 determined a gas/oil ratio.

19 Q Statewide.

20 A Statewide. The -- we looked at the area.  
21 The Benson Deep No. 4 had exhibited the potential and had  
22 produced at rates far in excess of that 70 barrels a day.  
23 There was no apparent formation damage or any damage to the  
24 reservoir. We had a well that is capable of producing at a  
25 much higher rate than 70 barrels a day. We felt that it was

1 an oil reservoir and that the only change needed to be that  
2 the allowable should have been increased, the statewide  
3 depth bracket allowable for 160-acre oil, which is 570  
4 barrels per day.

5 Q In addition, what other changes were  
6 Meridian requesting with regards to the gas/oil ratio  
7 limitation?

8 A We asked that the gas/oil ratio  
9 limitation be increased to 3000-to-1.

10 Q And that case is pending a decision  
11 before Examiner Catanach?

12 A Yes, sir.

13 Q Let's go now to the specifics of how we  
14 ended up with the Meridian Benson 3 Federal 1 at an  
15 unorthodox well location.

16 A Okay.

17 Q First of all, let's use Exhibit Number  
18 Three as a guide for us and have you identify where the well  
19 would have been located at a standard location under the  
20 Benson Strawn Pool rules.

21 A Okay. The original location that we had  
22 staked out here was 660 from the north line and 660 from the  
23 quarter section boundary line, west quarter section boundary  
24 line of the section. It would be drilled in Unit letter B.  
25 At the original drill site we had a standard location.

1 Q The special rules for the Benson Strawn  
2 Pool require for 160-acre spacing that wells be no closer  
3 than --

4 A 660.

5 Q -- 660 from the outer boundary.

6 A That's correct.

7 Q All right.

8 A On November 5th, 1986, we had an archaeo-  
9 logical review of the area and in this review they found two  
10 problems with our location as proposed. One was New Mexico  
11 Archaeological Site 5818, which caused the well to have to  
12 be moved to the west toward the quarter section boundary  
13 line. The location also had to be moved off of a Phillips  
14 pipeline to the south but that -- that move would not have  
15 made it a nonstandard location. The predominant reason was  
16 this New Mexico Archaeological Site 5818.

17 In placing this well where we did, we at-  
18 tempted to keep it as near the standard location as possible  
19 and drill it in this quarter quarter section. To back up  
20 just a minute and -- well, anyhow, on November 11th the  
21 archaeological review suggested clearance, which I believe  
22 is Exhibit --

23 Q Should be Exhibit Five.

24 A -- Five, and --

25 Q Let's turn to that now so that the Exam-

1 iner can follow the testimony, Mr. Olle.

2 A Okay.

3 Q Exhibit Number Five is what, sir?

4 A Exhibit Five is the archaeological report  
5 that I was referring to and in this the archaeologist, Mr.  
6 Lauren Haskill, (sic) said that he would suggest clearance  
7 for the project provided that we move the location to avoid  
8 the archaeological site.

9 Subsequent to this, we received by their  
10 letter of December 8th, which is Exhibit Four, from the  
11 United States Department of the Interior, approved applica-  
12 tion permit to drill the well.

13 Q You were dealing with federal acreage in  
14 this section?

15 A It was on federal acreage, yes, sir.

16 Q All right, what then did Meridian do?

17 A Meridian thought they at this point were  
18 legal and had a standard location to drill, or approval to  
19 drill the nonstandard location.

20 I might back up, I mentioned the merger  
21 was between Meridian and Southland Royalty during 1986, and  
22 since the merger, there were new people doing regulatory  
23 work that had not been doing regulatory work previously --

24 Q In New Mexico.

25 A -- in New Mexico. They were used to



1 working in Texas, and essentially in Texas when you get an  
2 approved permit to drill, you have -- you're approved for  
3 your location.

4                   They did not realize that the permit to  
5 drill from the BLM did not necessarily mean that we had  
6 state approval for the unorthodox location, and we actually  
7 found out that we had to appear at this hearing when we at-  
8 tempted to potential our well and found that the state would  
9 not issue an allowable due to the nonstandard location.

10           Q           The purpose of this application, then, is  
11 to obtain the concurrence of the Oil Conservation Division  
12 for the approval of this unorthodox location.

13           A           Yes, sir, and the intent of this, as I  
14 said, if you look at Exhibit Number Three, we tried to drill  
15 as close to orthodox as possible, yet drill in this quarter  
16 quarter section. There was not a location -- there was not  
17 another standard location, actually, that we could drill  
18 within this quarter quarter section. We were not -- the  
19 Yates well in the northwest quarter of Section 3, which is  
20 the well we were basically offsetting, if the intent would  
21 have been to crowd that well, we would have drilled in the  
22 southwest quarter quarter of the -- southwest quarter of the  
23 northeast quarter --

24           Q           Let's go to Exhibit Number Two again, Mr.  
25 Olle.

1           A           -- and that would be -- Exhibit Number  
2 Two, excuse me.

3           Q           All right, let's go to Exhibit Number  
4 Two. What would have been the distance between the Yates  
5 Benson Deep 4 Well and the Meridian well if the Meridian  
6 well had been drilled at its closest standard location?

7           A           We would have been 1320 feet away from  
8 the Yates well.

9           Q           1320 is the closest standard location?

10          A           Yes, sir.

11          Q           In terms of the physical location of the  
12 well now in relation to the closest Yates well, what is that  
13 distance?

14          A           It's 1725 feet.

15          Q           And had the well been drilled at the  
16 660/660 location originally proposed, what would have been  
17 the distance between the two wells?

18          A           I don't have that figure but at the  
19 760/660 location it would have been 1797 feet, which would  
20 have been approximately 70 feet farther away on a diagonal.

21                    And because of this, we don't feel that  
22 any penalty would be justified on our well.

23          Q           Based upon the relationship between the  
24 Yates well and your well, do you see that the proposed unor-  
25 thodox location for this well is one that violates Yates'

1 correlative rights?

2 A No, sir, we do not feel that it does.

3 Q And the resulting shift in location was a  
4 topographical change to accommodate the discovery by this  
5 archaeologist of some type of site that he felt worthy of  
6 preservation?

7 A Yes, sir, it was some burned caliche.

8 Q Okay. In looking at Exhibit Number  
9 Three, Mr. Olle, am I correct in understanding that it was  
10 Meridian's intent to stay in the northern portion of this  
11 160-acre spacing unit and to stay in close proximity to the  
12 Phillips Petroleum pipeline but that you were unable to site  
13 the well north of the pipeline because of the footage  
14 requirements?

15 A Yes, sir, that is correct. We would have  
16 been -- we could not build a location on top of the pipeline  
17 for safety reasons and had we moved to the north of the  
18 pipeline we would have been very nonstandard as to the lease  
19 to the north.

20 Q And the requested location before the  
21 Examiner today is the closest unorthodox location from the  
22 original site that you were able to drill.

23 A Yes, sir, that is correct.

24 MR. KELLAHIN: Mr. Examiner,  
25 that concludes our presentation of direct testimony from Mr.

1 Olle. We would move the introduction of Meridian Exhibits  
2 One through Five.

3 MR. STOGNER: Exhibits One  
4 through Five will be admitted into evidence.

5

6 CROSS EXAMINATION

7 BY MR. STOGNER:

8 Q Mr. Olle, what is the present status of  
9 this well?

10 A It has -- at the hearing, as I mentioned,  
11 the Yates well had been producing as a gas well, and at the  
12 time of the hearing it was producing approximately, I be-  
13 lieve the number was 250 barrels a day.

14 The Benson well was issued an allowable  
15 based on correlative drainage to the Yates well.

16 Q Now are we talking about this well here?

17 A Yes, sir, I was just backing up. It's --

18 Q Okay.

19 A -- producing currently. I was just  
20 telling you how it was producing.

21 Q Okay.

22 A I was going to explain to you that be-  
23 cause the Yates well was producing and there -- of all the  
24 problems that had come up in the pool based on the top  
25 allowable being 70 barrels a day and the very large

1 variance, it would be out of balance if the pool remains as  
2 an oil pool. Our well was issued a correlative allowable by  
3 the Commission and our well is currently producing. It went  
4 on production over the Easter weekend. And as I said, it's  
5 producing, I believe the number is around 300 barrels a day.  
6 It was -- they're still stabilizing the well, and the gas-  
7 oil ratio is just about 2000-to-1.

8 Q Regardless, that's under the maximum al-  
9 lowable if it was either in either -- if it was either in  
10 the Benson Pool as it is now or if it's incorporated into  
11 the proposed pool that Yates is suggesting, depending on the  
12 outcome.

13 A If the Benson Pool rules are -- if the  
14 allowable is increased in the Benson Pool, yes, sir.

15 Q Okay.

16 A As I said, the -- as the pool is cur-  
17 rently set up, the top allowable is 70 barrels a day.

18 Q So you're -- you're going over that.

19 Due north of you there I show an R. J.  
20 Jones. Now is he a leaseholder or what's the status of  
21 this?

22 A That is -- that lease is currently owned  
23 by Phillips Petroleum.

24 Q Okay, and how about due east of you to  
25 the -- in Section 2? Is that Yates acreage?

1           A           I believe that is Yates acreage, yes,  
2 sir.

3           Q           And to the south you've got that marked  
4 in red, so that's Meridian acreage.

5           A           That's Meridian acreage that has been  
6 picked up recently at a federal lease sale, yes, sir, that's  
7 100 percent Meridian lease.

8           Q           Okay. How about the acreage in Section  
9 35 to the north and east?

10          A           I can't speak to that. I can't tell from  
11 the map.

12                        We, when we sent the notice, we attempted  
13 to send to everybody that was -- that had current leasehold  
14 in the area and we checked with our Land Department and the  
15 list that we have should be the current list.

16                        MR. STOGNER: Okay, I have no  
17 further questions of Mr. Olle.

18                        Are there any other questions  
19 of this witness?

20                        MR. KELLAHIN: No, sir.

21                        MR. STOGNER: If not, he may be  
22 excused and this case will be taken under advisement.

23

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(Hearing concluded.)

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C E R T I F I C A T E

I, SALL W. BOYD, C.S.R., DO  
HEREBY CERTIFY the foregoing Transcript of Hearing before  
the Oil Conservation Division (Commission) 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 hereby certify that the foregoing is  
a true and correct record of the proceedings in  
the earlier hearing of Case No. 9116,  
heard by me on 22 April 1987.

Michael H. [Signature] Examiner  
Oil Conservation Division