

1 STATE OF NEW MEXICO  
2 ENERGY AND MINERALS DEPARTMENT  
3 OIL CONSERVATION DIVISION  
4 STATE LAND OFFICE BLDG.  
5 SANTA FE, NEW MEXICO

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7  
8 11 July 1984

9 EXAMINER HEARING

10 IN THE MATTER OF

11 Application of Consolidated Oil  
12 & Gas Inc. for amendment of  
13 Division Order No. R-6943-A,  
14 Lea County, New Mexico.

CASE  
8248

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19 BEFORE: Richard L. Stamets, Examiner

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TRANSCRIPT OF HEARING

A P P E A R A N C E S

101 For the Oil Conservation  
102 Division:

103 For the Applicant:

W. Thomas Kellahin  
Attorney at Law  
KELLAHIN & KELLAHIN  
P. O. Box 2265  
Santa Fe, New Mexico 88201

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I N D E X

DANIEL S. NUTTER

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E X H I B I T S

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MR. STAMETS: Call next Case 8248, being the application of Consolidated Oil & Gas Inc. for amendment of Division Order No. R-5943-A, Lea County, New Mexico.

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

MR. STAMETS: Any other appearances in this case?

(Witness sworn.)

DANIEL S. NUTTER,  
being called as a witness and being duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Would you please state your name and occupation?

A My name is Dan Nutter. I'm a consulting engineer.

Q Mr. Nutter, have you been retained by Consolidated Oil and Gas Inc. to provide testimony in this

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case today?

A Yes, I have.

Q And were you the expert witness for Consolidated Oil and Gas Inc. when the Examiner heard Case 8093 on February 29th, 1984, that resulted in Division Order R-6943?

A Yes, I was.

MR. KELLAHIN: We tender Mr. Nutter as an expert petroleum engineer.

MR. STAMETS: He is considered qualified.

Q Mr. Nutter, let me direct your attention to the Examiner Order, R-6943-A, and have you explain to Mr. Stamets the two areas that have caused the operator some difficulty in implementing the terms of the current order and what the operator is seeking to accomplish at this hearing.

A Okay. Number -- Order No. R-6943 was originally entered in 1982 and it authorized Consolidated Oil and Gas to dispose of produced salt water in the Abo formation through its Midway State Well No. 1, located in Unit letter P of Section 8, Township 17 South, Range 37 East, Lea County.

The Abo formation plugged up or filled up and it was no longer receptive to water, so Consolidated in Case Number 8093 heard last February sought the amendment of Order No. R-6943 to change the disposal zone from the Abo to

1  
2 the Glorieta formation. Whereas water has previously gone  
3 into the Abo at a depth of 8688 to 8856, the Order No. R-  
4 6943-A authorized disposal into the Glorieta in the interval  
5 from 6585 feet to 6690 feet.

6 However, the Examiner saw two given areas  
7 of possible problems in the disposal of water into the Glor-  
8 ieta.

9 First of all he saw that there were three  
10 plugged wells, which, it was probably our fault for not mak-  
11 ing perfectly clear at the hearing, had been adequately  
12 plugged.

13 Q Those three wells that are listed as  
14 plugged wells are found in what paragraph of the current or-  
15 der?

16 A They're found in -- they're described in  
17 finding number seven, being the Hondo Drilling Company Mid-  
18 way State "A" No. 1; the David Faskin Consolidated State  
19 Well No. 1; and the Supron Energy Corporation Lovington 9  
20 State No. 1, in Sections 8, for the first well, and Section  
21 9 for the second two wells.

22 Q Mr. Nutter, have you taken a schematic  
23 from the hearing in February for each of those plugged and  
24 abandoned wells and indicated in red on each of those sche-  
25 matics where the corresponding Glorieta formation perfora-  
tions would be in the disposal formation?

A Yes, sir. The equivalent disposal zone  
has been identified in red on each of the three so-called

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problem wells from Order No. R-6943-A.

You will note, Mr. Examiner, that the disposal zone is isolated in each of these plugged wells by a cement plug, except in the case of the last well on the exhibit, Lovington 9 State Well No. 1, in which case it's isolated by a cement plug above the Glorieta and a cast iron bridge plug below the Glorieta with 35 sacks of cement on top. That case iron bridge plug is at 8794 feet and has, with its 35 sacks of cement and 4-1/2 inch casing we have approximately, over 400 feet of fill-up there.

So we feel that the disposal zone in the Glorieta is adequately isolated in each of these plugged wells.

Q Have you confirmed with Jerry Sexton of the District Office of the Oil Conservation Division that he also concurs in your opinion that each of those three wells is properly plugged to isolate the Glorieta formation?

A Yes. Mr. Sexton has reviewed this problem on these three plugged wells and concurs with us that they -- that the disposal zone is isolated.

MR. KELLAHIN: If the Examiner please, we'll request that Order Provision Seven of Order No. R-6943-A be deleted or a letter issued to the operator indicating that those wells in fact are properly plugged and abandoned.

Q Now the second issue, Mr. Nutter, is the question of the offsetting producing wells that are the sub-

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ject of the order.

What provision of the order contains the requirements with regards to the four producing wells?

A Paragraph eight, or finding number eight of R-6943-A mentions the Apollo Lovington 16 No. 1, located in Section 16; the Consolidated Oil and Gas Southern Union State No. 1 in Section 16; the Gulf Oil Corporation Lea "KN" State Wells Nos. 1 and 2 in Section 17.

These are all producing wells and there was some concern in that cement on the long string of pipe did not cover the Glorieta formation and the Examiner felt that these might pose a problem and present an avenue of escape for disposal waters.

Q All right, sir.

A So he put a provision in the order, which is on page four of the order, and it states: Provided further that injection into the Glorieta formation...and I'll skip the three...into the Glorieta formation through the Midway State No. 1...and I'll skip the three plugged wells...shall not occur until the wells, the Midway Abo producing wells described in Finding Number Eight of this order have been shown to have adequate cement across and above the proposed injection interval or have been recemented across such interval in a manner that's satisfactory to the supervisor of the Hobbs Office.

Okay, we cannot show that they did have cement across the disposal interval because it's not there.

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2 We cannot show -- we can't recement it  
3 because the wells don't belong to us.

4 So we had discussed this matter with Jer-  
5 ry Sexton also.

6 Q And what agreement has the operator and  
7 the District Supervisor for the Oil Division reached with  
8 regards to the four producing wells that are the subject of  
9 the order?

10 A Mr. Sexton agrees that if a bradenhead  
11 pressure test would be run on the intermediate pipe on a  
12 quarterly basis, and those bradenhead pressure tests report-  
13 ed to him quarterly, if there's no pressure on them, or if  
14 there's no anomalous pressure on them, that he would consi-  
15 der that the wells were properly taken care of.

16 Now he does prescribe that those pres-  
17 sure, those bradenhead pressure tests taken on a quarterly  
18 basis would be reported to him on his regular bradenhead  
19 testing form, and he says that as far as he's concerned, it  
20 would be adequate if that were done.

21 Q Has the operator reached an agreement  
22 with the owners of these offsetting wells to allow Consoli-  
23 dated to take the necessary pressure on the intermediate  
24 casing strings?

25 A Yes, they have.

Q Mr. Nutter, in your opinion as an expert  
petroleum engineer, will the two modifications to the cur-  
rent order be in the best interests of conservation, the

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prevention of waste, and the protection of correlative rights?

A I believe that they would.

Q In your opinion, do you see any potential risk of contamination to fresh water sources if the order is modified as requested?

A No, sir, I don't. I think that the three plugged wells are adequately plugged. I think that the tests that would be conducted on the four producing wells would provide sufficient protection and that there would be no problem, or if there should develop a problem, it could be detected and corrective action taken.

MR. KELLAHIN: That concludes my presentation on behalf of Consolidated.

We move the introduction of Exhibit Number One and its three parts.

MR. STAMETS: Exhibit Number One is admitted.

#### CROSS EXAMINATION

BY MR. STAMETS:

Q Mr. Nutter, can you guarantee that any of us are going to be around here six months from today, six years from today? What I'm getting at, is there any way that we can reasonably guarantee that for the life of this well as an injection well, that all the parties who are going to know that this test is supposed to be run quarter-

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ly, are we all going to be around here?

A No, I don't think we'll be here, necessarily. I don't know how long this disposal well will be used.

The previous zone was only used for two years before it filled up. I hope the Glorieta lasts longer than that and I hope we all last longer than that.

But I think that the order if issued would be in perpetuity as long as the well was being used and that if there were any heirs to either us here or to the operators of the wells, that the order would be applicable to those heirs.

So I don't think that any change in personnel on any -- at any level here need affect it.

Q Well, I'm just trying to think of a fool-proof way that we can keep track of these wells until this well is no longer used as a disposal well.

A All kinds of flags on the files.

Q Well --

A Tell Melba about it and she'll keep track of it while she's there for sure, and tell her to tell her successor if she should leave.

Melba will keep tabs on it, I know.

MR. STAMETS: Any other questions of this witness? He may be excused.

Anything further in this case?

The case will be taken under advisement.

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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. 8242 heard by me on 7/11 1984.

Richard P. Starn, Examiner  
Oil Conservation Division