STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT 1 OIL CONSERVATION DIVISION STATE LAND OFFICE BUILDING 2 SANTA FE, NEW MEXICO 3 6 August 1986 4 5 EXAMINER HEARING 6 7 IN THE MATTER OF: 8 Application of Trobaugh Properties CASE 9 for salt water disposal, Lea County, 8959 New Mexico. 10 11 12 13 14 BEFORE: Michael E. Stogner, Examiner 15 16 TRANSCRIPT OF HEARING 17 18 APPEARANCES 19 20 For the Oil Conservation Jeff Taylor Division: Attorney at Law 21 Legal Counsel to the Division State Land Office Bldg. 22 Santa Fe, New Mexico 87501 23 24 For the Applicant: W. Thomas Kellahin Attorney at Law 25 KELLAHIN & KELLAHIN P. O. Box 2265 Santa Fe, New Mexico 87501

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4 1 2 MR. STOGNER: This hearing will 3 come to order for Docket Number 23-86, the date, August 6th, 4 1986. I'm Michael E. Stogner, Alternate Examiner for today. 5 We will call first Case Number 6 8959. 7 MR. TAYLOR: The application of 8 Trobaugh Properties for salt water disposal, Lea County, New 9 Mexico. 10 MR. STOGNER: Call for appear-11 ances. 12 MR. KELLAHIN: Mr. Examiner, 13 I'm Tom Kellahin of the Santa Fe law firm of Kellahin & Kel-14 lahin, appearing on behalf of the applicant. 15 16 (Witness sworn.) 17 18 DAN C. BERRY, 19 being called as a witness and being duly sworn upon his 20 oath, testified as follows, to-wit: 21 22 DIRECT EXAMINATION 23 BY MR. KELLAHIN: 24 For the record, Mr. Berry, would Q you 25 please state your name and occupation?

5 1 А Dan Berry, Dan C. Berry, and I am prim-2 arily a rancher but I've been in the oil business for some-3 thing like thirty years. Would you describe for the Examiner what Q 5 relationship and knowledge you have about Trobaugh Proper-6 ties? 7 А Okay, they came in there and drilled a 8 well pretty close to the ranch house and we have a pumping 9 service. We take care of wells, managing wells, and produc-10 ing wells. 11 So we managed this well for that company. 12 And when you say "this well", you're re-Q 13 ferring to the proposed salt water disposal well? 14 Α Yes. No, the original well that goes in-15 to the salt water disposal. 16 0 The well that produces --17 Yes. А 18 0 -- from the Yates-Seven Rivers formation? 19 А That's correct. 20 Q And are you familiar with the location of 21 the proposed disposal well, Lynch Well No. 1, in Section 35? 22 А Yes, I am. 23 Q Are you familiar with the other wells, 24 oil and gas wells, that have been drilled and completed 25 within a half mile radius of the proposed disposal well?

6 1 Texaco is the only one we don't А Yes. 2 take care of. 3 Are you appearing on behalf of Trobaugh О 4 Properties today? 5 А Yes, I am. 6 Q To present their application? 7 А Yes. 8 MR. KELLAHIN: We tender Mr. 9 Berry as a practical oil and gas operator and consultant for 10 the applicant today. 11 MR. STOGNER: Mr. Berry is so 12 qualified in that manner. 13 Mr. Berry, let me direct your attention Q 14 first of all to Exhibit Number One, which is simply the Com-15 mission form C-108, and have you then turn to what we've 16 marked as Exhibit Number Two. This is the summary of what 17 the applicant proposes for the disposal well. 18 In addition I'd like you to turn to Exhi-19 bit Number Four, which is the plat, and perhaps be should 20 start with the -- start with the plat and have you locate 21 for the Examiner the Lynch disposal well that the applicant 22 proposes to utilize for disposal purposes. 23 А Okay, I'll have to look at it. It's 24 right up above that correction line and I always get con-25 fused, the one south of it in Section 2, but this is north

7 1 of the section line and that would be in 35, Section 35. 2 Yes, sir. To -- it's -- the docket indi-Q 3 cates Section 35 of Township 20 South, Range 34 East, is 4 that correct? 5 А Yes, that is, uh-huh. 6 All right. And the docket indicates that C 7 it's in Unit letter N. 8 А Okay. 9 Where --0 10 А Correct. 11 0 In looking at the plat, Mr. Berry, where 12 is the disposal well in relationship to the well you identi-13 fied as the well from which water will be produced and dis-14 posed of into the injection well? 15 А Approximately a half a mile south. 16 0 Can you identify for us so the Examiner 17 can find that well? 18 А That's that Craig (sic) -- I can't read 19 the lot today, but it's in Section 2, Township 21, Range 33. 20 I can't read this that close to give you the lot number. 21 С If you'll go ahead and circle it on your 22 exhibit, then I will show your copy of the exhibit to the 23 examiner. All right. 24 How many wells produce water that will be 25 disposed of in this well, Mr. Berry?

A Just one well at this point and they'll
have to come back for another one.

3 Q All right, and it's -- it's the well 4 right adjacent to the plugged and abandoned well? There's 5 two well spots there together?

6 A Yeah, the old Texaco well. What they 7 did, they came in and drilled a 5-point. Those are four old 8 producing wells and they came in the middle of those and 9 drilled that 5-point in theres and picked up this production 10 that had run out in the other wells.

11 Q And this is production from the Yates and 12 Seven Rivers formation?

13 A Yes, Lower Yates and Seven Rivers.

All right, let's go back, then, now that we have shown the examiner where the disposal well is and where the producing well is, go back and summarize for him, using Exhibit Number Two, what the applicant proposes to do with the disposal well in terms of the footage interval and the proposed rates of disposal.

A Okay. I apologize to the Commission, I haven't had time to look this over, but I'm sure it's in the 3700 foot range. The Upper Yates, of course, stops at about 3700 so this puts it in the water driven range; okay, 3774 to 3805. That would be in the Lower Yates, and in the Seven Rivers, as it's called, part of that.

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9 1 Q And what are the proposed daily rates of 2 disposal that the applicant requests? 3 А I can vouch for the Sabine lease right 4 north of it, they go something like 610 barrels a day in 5 that well and it is under a -- it's a vacuum. 6 Texaco's on a vacuum west of it about a 7 half a mile. 8 The disposal well's in the area, Q then, 9 take fluids into the Yates-Seven Rivers formation on a 10 vacuum? 11 А On a vacuum. 12 0 And that is the proposed plan for this 13 well? 14 А The proposed plan for this; no pump and 15 no pressure at all. 16 Q All right, let's turn to the schematic, 17 Exhibit Number Three and have you -- this is the schematic 18 for the proposed disposal in the Lynch No. 1 Well, Mr. Ber-19 ry. In your opinion is the surface casing string run to a 20 depth sufficient to isolate out any fresh water sands in the 21 area? 22 Α Definitely. As the ranching industry 23 we've tried to find water up on that hill and in that vicin-24 ity in numerous cases. 25 There's a well west of it that belongs to

10 1 the ranch at 100 feet and it's a very weak well and it's 2 certainly (not understood.) We haven't been able to find 3 any water up there at all, and so the 147 feet is adequate. Let's turn, then, to Exhibit Number Five, Ο 5 which is the tabulation. 6 The applicant has submitted a three-page 7 Exhibit Number Five, showing a tabulation of all the 8 wellbore information for those wells within a half mile 9 radius of the disposal well. 10 Are you generally familiar with these 11 wells, Mr. Berry? 12 Α Yes, everyone of them with the exception 13 I do understand the Texaco leases but I never of Texaco. 14 have -- we never have taken care of them as a pumping ser-15 vice, but the rest of them we have. 16 Q Based upon your personal knowledge of 17 this area, Mr. Berry, are you aware of any waterflows on the 18 surface that may have been occasioned by the disposal of 19 produced waters into formations in this area? 20 А No, there has been one that I know of. 21 The Commission does a good job of checking those disposal 22 wells and I do appreciate that, being a rancher part of it. 23 0 Are you aware of whether or not any of 24 the wells listed on the tabulation are completed in such a 25 way as to constitute a risk to potential fresh water sources?

11 1 А I'm sure there are none. I've watched 2 that very closely because we are interested in the fresh 3 water out there. 4 All right, sir, let me turn to Exhibit Ο 5 Number Six. Exhibit Number Six is simply a plat to locate 6 the examiner as to where the producing wells are plugged and 7 abandoned wells are within the half mile radius. 8 To the best of your knowledge, Mr. Berry, 9 is that an accurate location for these wells as indicated on 10 Exhibit Number Six? 11 Ά Yes, I believe it is. It's -- you can't 12 define it real close on here. 13 Yes, I think it is. 14 Q Okay. And then from Exhibit Seven 15 through Fourteen, the applicant has attached schematics of 16 the plugged and abandoned wells within the half mile radius. 17 I'll ask you to review each one of those 18 and --19 А Okay. 20 0 -- advise me as to whether or not in your 21 opinion you believe any of these to be a potential risk. 22 А Okay. We were pumping the Neal No. 1 23 there in Exhibit Seven at the time it was plugged and it was 24 certainly plugged properly. 25 Number Eight is the same thing. We

watched all these very, very closely because back in the late thirties and early forties we had some water damage south of there about a mile and so we were very, very careful any time they began to plug a well to check on it as a rancher.

And so, yes, I would vouch for Eight,
Nine, Ten, Eleven, Twelve. I was there and I'm sure it's
plugged correctly, but I can't vouch for it as closely
because we weren't taking care of it.

10 Q You didn't have personal knowledge of the 11 Texaco well?

12 А Yes, I had personal knowledge because 13 Muncy came in there and bought those leases and we were 14 watching it pretty closely but as far as overseeing any part 15 of it, I didn't, or being able to vouch 100 percent, that's 16 a little bit different on the last three, Twelve, Thirteen, 17 Fourteen, but I'd say yes, they were plugged, plugged 18 properly. They haven't given us any problems.

Q All right. Let's turn to Exhibit Number
Fifteen, Mr. Berry. Would you identify for us where the
house water well upon which this water sample was taken?

A Okay, that's a long section there going
south, so the ranch house is approximately a mile south of
this well and then a quarter of a mile, so it would be about
-- just a fraction over a mile south is the house water well.

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13 1 A half a mile west, approximately, we 2 have a little water well there of just under 100 feet and it 3 is the weak well that just barely waters that pasture. Q Are you familiar where the North Oilfield 5 Well is Section 34? 6 А Yes, that's the one that's west of this 7 well about half a mile, that I mentioned last. 8 Q All right, and what formation does it 9 produce from, do you know? 10 Α It's at less than 100 feet; a little under; about 100 feet. 11 12 0 Okay. 13 MR. KELLAHIN: And then final-14 ly, Mr. Examiner, Sixteen represents copies of the certified 15 mailings to all offset operators and the surface owner. 16 Mr. Berry, who is the surface owner at 17 the location of the disposal well? 18 Α Oh, gosh, it's either Texaco or it's a 19 Federal lease. I'm not sure on that. I'd just have to 20 look that up. I believe that's on Texaco property. They 21 have 80 acres up there on that hill and I'm not sure whether 22 it's in or out of it, but it's close. 23 MR. KELLAHIN: We'll verify 24 that for you, Mr. Examiner, and I will subsequently to the 25 hearing give you copies of the return receipt cards which --

14 1 But it's either Berry Ranch or Texaco. А 2 You've identified from your personal 0 3 Berry, that in your belief there is an abknowledge, Mr. 4 sence of fresh water in the immediate area that can be used 5 for beneficial purposes, is that correct? 6 А Down to about 800 feet and they take care 7 of that, you know. There is some water at 800 feet but it 8 will be adequately taken care of with the proposal they 9 have here. 10 Are you aware of any geologic conditions 0 11 or any hydrologic conditions that would give you concern? 12 А None. 13 0 Do you believe that the proposed utiliza-14 tion of this disposal well for disposal purposes can be 15 done in the best interests of conservation? 16 А I think it's definitely beneficial be-17 cause if you don't take care of it in this manner and don't 18 set it up right, you'd begin to have problems later down the 19 line, so I do think this will be beneficial to the surface 20 water. 21 MR. KELLAHIN: That concludes 22 my examination of Mr. Berry, Mr. Examiner. 23 We move the introduction of Ex-24 hibits One through Sixteen. 25 MR. STOGNER: Exhibits One

15 1 through Sixteen will be admitted into evidence. 2 3 CROSS EXAMINATION 4 BY MR. STOGNER: 5 Mr. Berry, let's refer to Exhibit Number Q 6 Four, that's the land plat. 7 А Okay. 8 Q There are two wells on my exhibit in 9 Section 34, being the east half of the southeast quarter, 10 that are marked --11 А That's right, I did mark the wrong one. 12 That's down there on the Dechicchis lease and it's right by 13 the --14 MR. KELLAHIN: I'm sorry, I 15 must be looking at something different. 16 What was the question again? 17 MR. STOGNER: There are two 18 wells marked --19 А I marked it wrong when I put that circle, 20 I marked the wrong one. 21 It's a 5-point back up there --22 MR. KELLAHIN: He's looking at 23 something else. 24 А Yeah, see, I marked it down here by this 25 Dechicchis lease and it's up here in the Texaco lease.

16 1 MR. KELLAHIN: He's asking you 2 about these two --3 Oh, these two disposal wells here? А 4 5 (There followed a discussion between 6 Mr. Berry and Mr. Kellahin off the 7 record.) 8 Α Mike, I'm sorry I marked that wrong a mo-9 I just looked at it wrong. That's down there in ment ago. 10 the old -- Dechicchis it has here on this map, and that's 11 right there by the ranch house. 12 MR. KELLAHIN: Let's clarify 13 the question, Mr. Berry. 14 А Yes. 15 MR. KELLAHIN: Let me go back 16 and ask you to relocate for us the producing well that pro-17 duces water that will be disposed of in the disposal well. 18 You originally marked it south of the actual location? 19 Α Yes, I marked it, let's see, one, two, 20 two locations south of that. 21 It's back up there on the E. M. Craig on 22 the map is the actual location of that. 23 MR. KELLAHIN: And there may 24 not actually be a well symbol on that exhibit. 25 А There is not, no, I don't believe.

17 1 MR. KELLAHIN: All right, sir, 2 but the proper location of that well, then, is at what point 3 on that exhibit? 4 Well, it's a point between these other А 5 wells exactly. 6 MR. KELLAHIN: All right. 7 А Between these other wells, and they came 8 in there and just drilled a 5-point in there. 9 MR. KELLAHIN: Now, if you'll 10 look to the west on the exhibit, there are two blue circles. 11 А Yes. 12 MR. KELLAHIN: Those are the 13 two blue circles Mr. Stogner was asking you about. Could 14 you identify those wells for him? 15 А Yeah, they're the Texaco disposal wells 16 where they moved back up there. They used to dispose of 17 that well about a mile north of there and they moved up 18 there and put disposal in those two wells as of about two to 19 three years ago. 20 О Mr. Berry, are those still used as dispo-21 sal wells? 22 Α I assume that they are. They're still 23 producing quite a lot of water, Texaco is, down there in the 24 in the old field. 25 I might mention right there, Mike, that's

18 1 the second well drilled in Lea County, the 26, that fits in 2 that category and they've been doing it a long time and no 3 damage. С Okay, thank you. And they are presently 5 injecting into the Yates-Seven Rivers formation, the forma-6 tion that you're --7 А I assume they are, Mike. I'm not on that 8 production, but I do know they were set up for that purpose 9 and I assume they still -- that they are putting the water 10 in it that's going somewhere. 11 As always, I'll take administrative \cap 12 notice of any well files that we have here at the Commis-13 sion. 14 Let's refer now to Exhibit Number Three. 15 This is the schematic of your proposed well. 16 If I understand it right, the 5-1/2 is 17 still in there, is that correct? 18 А That's correct. 19 Okay, and you propose to run call it a С 20 liner. Where will the top of the liner be? 21 А 3700, yeah, 5-1/2 -- no, wait a minute. 22 It will be set at 3753 and the liner will be at 3774. 23 And it will run all the way back up to Q 24 the surface? 25 А It will come back to the surface.

19 ١ Q Okay. And then you propose to run 2-2 1/16th inch plastic-coated tubing, is that correct? 3 Yes, that's correct. Α 4 With a packer set at 3753. Q 5 А 37 -- yeah, that's right. 6 Will there be mechanical integrity test 0 7 run on this well prior to injection, if it's approved 8 through the District Office in Hobbs? 9 I'm sure they will. А 10 Okay. 0 11 Α I hope they will. I appreciate them 12 doing that. 13 I'd like to refer to the schematic of the 0 14 plugged and abandoned wells, Seven through Twelve -- I'm 15 sorry, Seven through Fourteen. 16 In Exhibit Number Seven in particular I 17 show that there's still some 5-/12 inch casing and there was 18 375 sacks of cement and likewise in some of the other wells. 19 Do you have the top of the cement? 20 А No, I don't have that. I don't have 21 that, do you? 22 The reason I think that's correct, Mike, 23 is because that's just within a mile of the potash area and 24 they were very careful when they got within that range of 25 the potash area, as to how they were plugged and the cement

20 1 received. 2 Let's refer to Exhibit Number Twelve. Q 3 This is the Texas Company State "B" Well No. 1, and you show 4 the 6-1/4 inch casing was run, cement unknown, and then 5 there was a wooden plug in the 6-1/4 inch casing set at 6 3612, is that correct? 7 А That's the ones I can't vouch for, Mike, 8 but I would say there's -- there's been no damage since 9 those wells have been plugged that I know of. 10 MR. STOGNER: I have no further 11 questions of this witness. 12 Kellahin, do you have any-Mr. 13 thing further? 14 MR. KELLAHIN: One moment, let 15 me check something here, Mr. Examiner. 16 17 REDIRECT EXAMINATION 18 BY MR. KELLAHIN: 19 0 Let's look, Mr. Berry, at Exhibit Number 20 Twelve, which is the Texas company well Mr. Stogner was ask-21 ing you about. 22 And if you'll look at Exhibit Number Six, 23 also, at the same time, that is the location in ex for those 24 wells. 25 The prior exhibit shows that the well to 1 the far south on Exhibit Number Six, numbered No. 13, do you
2 find that?

A Yeah.
Q All right, the No. 13 Well, that locates
the Texas Company State "B" No. 1 Well. You can see the
disposal well location and the Texac Company well is approximately a half mile apart?

8 А Yeah. I'm -- I'm well aware of the well. 9 There's a little water -- Texaco had a little water well 10 there that was 1200 feet or 1000 feet deep, and they pro-11 duced it, it's in the old Lea township, but what I did was 12 that I -- I really couldn't vouch for these numbers on 13 cementing things. As far as I know the well was plugged 14 properly and I believe that it was, but as far as being able 15 to vouch -- vouch for the amount of cement, and so forth, I 16 can't do that.

17 Q Would the distance between the disposal 18 well and the Texas Company well, coupled with the fact that 19 the disposal well is to dispose of fluids under a vacuum 20 cause you to believe that however the Texaco Company well is 21 plugged, that it will or will not pose a risk?

22 A I don't believe there is any way it could
23 pose a risk.

24 You'd have to get clear back to the salt25 section before you could (not understood).

22 ۱ I have nothing MR. KELLAHIN: 2 further of Mr. Berry. 3 4 RECROSS EXAMINATION 5 BY MR. STOGNER: 6 О Okay. Mr. Berry, are there any producing 7 wells between this well designated No. 13 and your proposed 8 injection well? 9 А No. 10 MR. STOGNER: I have no further 11 questions. 12 Kellahin, do you have any-Mr. 13 thing further? 14 MR. KELLAHIN: No, sir. 15 MR. STOGNER: Does anybody else 16 have any further questions of Mr. Berry? 17 If not, he may step down. 18 Mr. Kellahin, I'll leave the 19 record open pending the additional information which was 20 you'll supply me later. 21 MR. KELLAHIN: All right, sir. 22 MR. STOGNER: Does anybody else 23 have anything further in Case Number 8959? 24 MR. BERRY: Mike, thank you 25 very much for rushing this up and I appreciate the people

24 1 2 CERTIFICATE 3 4 I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before 5 the Oil Conservation Division (Commission) was reported by 6 me; that the said transcript is a full, true, and correct record 7 of the hearing prepared by me to the best of my ability. 8 9 10 11 Jally W. Boyd CSR 12 13 14 15 16 17 he fore I do hera he prc a co 18 of Case t.e u xarrin 19 20 Ex. ainer Conservation Division Öil 21 10/15 /86 22 23 24 25