STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISON
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO

26 August 1987

EXAMINER HEARING

IN THE MATTER OF:

Application of Robert L. Bayless for downhole commingling, Rio Arriba County, New Mexico. CASE 9190

BEFORE: David R. Catanach, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

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

For the Applicant:

MR. CATANACH: The hearing will come to order.

Call next Case Number 9190.

MR. TAYLOR: Application of Robert L. Bayless for downhole commingling, Rio Arriba County, New Mexico.

MR. CATANACH: Are there appearances in this case?

MR. BAYLESS: I'm Robert L. Bayless, Farmington, New Mexico.

I'd like to submit these three copies of our request.

MR. CATANACH: Mr. Bayless, could you just go through the application and explain what you're asking for today?

MR. BAYLESS: Yes, sir, I can go through it. There's quite a bit of detail up here that you might want to peruse at your own leisure.

I'm seeking approval to commingle gas production from the GAllup and Pictured Cliffs formations in the wellbore of the Jicarilla 519 Well No. 1, located 790 feet from the south line and 1670 feet from the east line of Section 18, Township 30 North, Range 2 West, on the Jicarilla Apache Indian Reservation.

This well is located approximately 2.5 miles west/northwest of the junctio of Highway U.S. 64 and New Mexico 537.

Basically this is a remote well over six miles from any other well producing out of the zones that we wish to commingle. This was a well that was drilled originally by Amoco. They attempted a completion in the Dakota formation unsuccessfully. They plugged it.

They attempted a completion in the Gallup. It was very marginally commercial.

I acquired the well and the entire four section lease from Amoco. I set a bridge plug across the Gallup, perforated and fraced the Pictured Cliffs. Details are all set forth in this exhibit.

I tested it and pulled the bridge plug. I should correct myself. Before I did anything I did another flow test on the Gallup zone, then set the bridge plug, perforated and fraced the Pictured Cliff; flow tested it and (not clearly understood.)

We now have to (unclear) with a packer separating the two zones. We would like to commingle the two zones, each of them are very marginal and they produce some water.

We feel that we could get better flow characteristics if we had the two zones together.

The BTU content of the gas is set forth in one of the exhibits. The BTU content of the two gases are quite similar.

There is a pressure differential between the Gallup and the Pictured Cliffs of about 1200 pounds; however, the gas, as indicated, is very similar in content of hydrocarbons.

The entire four section lease all has common ownership. I am the operator. I have a map that I could pull out. It's just a work map but I have all the acreage, not only on that four sections but for many miles around either under farmout or under assignment into me.

Union Oil Company has farmed out to me but we do have a letter, I believe it's been made available to you, that they have no objection to this commingling on their offset acreage.

There are quite a few sheets in here under Exhibit One, Attachment One, which gives in detail the work that Amoco did and the prolonged testing period that they went through on the Gallup zone itself.

Basically that's where we stand. The well is, even with two zones commingled, will be still a marginal, marginal well.

MR. CATANACH: What are the producing rates, or the projected producing rates for the

two zones, Mr. Bayless, when they're combined?

MR. BAYLESS: Our line pressures are fairly high in that area because we have our own gathering system to carry that gas to a pipeline company. We must have nine miles of gathering; there are many wells being gathered that I have to gather because of the reluctance of pipelines to lay to wells.

As I say, I have a work map here if you would give you a better overall picture of the overall area.

This will be the furthest (sic) northeast production in the San Juan Basin. It's really in a remote area in the Jicarilla Reservation.

MR. CATANACH: Okay, but you do own all the acreage involved, all the offsets are yours?

MR. BAYLESS: Yes. My offset acreage that I own goes considerably beyond what is shown in the exhibit. The exhibit only refers to the four section lease and the adjoining leases but I -- I go beyond that.

MR. CATANACH: Okay. Is there a well schematic somewhere in here?

MR. BAYLESS: No, sir, it's -- I don't believe there is.

We have 5-1/2 casing that's set down below 8000 feet and that was to test the Dakota. The

Dakota has been squeezed off and the Gallup is now producing at 7300 feet and the Pictured Cliff at 3700 feet.

MR. CATANACH: What's the higher pressured zone in this well?

MR. BAYLESS: The Gallup, the deeper zone.

MR. CATANACH: Do you have data on the bottom hole pressure?

MR. BAYLESS: Yes, sir, I believe -- I know it's in the -- on the -- in the exhibits, and it's around 2400 pounds.

I hope you won't hold me to that till I can find it.

I'm sorry, it's 2957 surface shut-in on the Gallup.

1065 surface shut-in on the Pictured Cliff.

We propose to use the two flow tests to allocate the production between -- if a commingling order is issued, we propose to use the two flow tests that we have to allocate the production between zones; however, we do have uniform, common working interest and royalty interest in -- throughout the well, throughout the zones, and throughout the acreage.

MR. CATANACH: Have you done

any reserve calculations at all?

MR. BAYLESS: No, sir, we really have not. There is such limited control, well, it's the furthest northeast well that's producing and it's several miles to another drill hole, so we don't have any real control over the areal extent of the sand and we have not flowed the wells long enough to get any kind of pressure test work.

The one thing -- one thing we're really convinced is that it's a very marginal operation.

MR. CATANACH: How do you propose to -- to produce the well, just through one single string of tubing?

MR. BAYLESS: Yes, sir.

MR. CATANACH: You're not going to put any sort of casing or anything.

MR. BAYLESS: No, we would like to just have a single string of tubing in and flow both zones up through it and we'll set the tubing on down at the Gallup interval. What we're trying -- we have some water there. We don't know how long the water is going to last. We've been checking the salinities and we can't say positively that this is frac fluid or formation fluid at this point, but we do have, oh, 50 or 60 barrels a day of water

and we need the flow from both zones to be able to lift that fluid.

MR. CATANACH: Let's see, are you going to put a packer above the Pictured Cliffs formation or --

MR. BAYLESS: No, sir, we don't want -- we don't propose to.

MR. CATANACH: Just the tubing will be --

MR. BAYLESS: The tubing will be hanging in the well.

We'd like to have the annulus, well, having the annulus open helps us on our flow characteristics, particularly if we intially -- finally go in with a piston or some kind of an intermittent device so we can build a volume of gas when the piston is actuated.

MR. CATANACH: Do you anticipate any crossflow problems into the Pictured Cliffs from the Gallup?

MR. BAYLESS: Well, obviously there's pressure differential. The rock in both zones is very poor quality rock as far as permeability is concerned. I don't think that crossflow will be a great problem and, frankly, we propose to -- that's the only way holding that Jicarilla lease, and that gas is not dedicated. We're

selling on the spot market and we're pretty much, I think, obligated to flow that well full time.

MR. CATANACH: I guess you do have a market for that gas.

MR. BAYLESS: At a price.

MR. CATANACH: Okay. Do you have a recommended allocation percentage based on --

MR. BAYLESS: Yes, it is. It's right on the Attachment, Attachment 7.

MR. CATANACH: You don't produce any condensate?

MR. BAYLESS: We haven't seen any condensate yet.

As I -- to repeat again, we're in the extremely -- extreme northeast portion of San Juan Basin and for some reason you just don't have liquid hydrocarbons up there. When you drop down to the south and east, obviously back to the southwest you do, but in that area it's very dry gas.

MR. CATANACH: How much water are you producing?

MR. BAYLESS: We think about 60 barrels but we -- there's a water schedule in there and we think it's, hopefully, going to decline.

On Exhibit Five you'll see a

production test on the Gallup giving the water production and, well, Four is the Gallup and Five will be a Pictured Cliff, showing the flow testing and the water production.

MR. CATANACH: Mr. Bayless, would it be uneconomical to produce the two zones separately?

MR. BAYLESS: We feel it would be and not feasible mechanically.

MR. CATANACH: Because of the water problems?

MR. BAYLESS: Because of the water problems.

MR. CATANACH: As I understand it, Union Texas is an offset?

MR. BAYLESS: Union Cal.

MR. CATANACH: That would be Union of California.

MR. BAYLESS: California, but we have a farmout on that acreage and we also have, and I believe you have it in your files, a waiver letter from Union Cal.

MR. CATANACH: Okay, I think that will be sufficient, Mr. Bayless, unless you have anything further to add.

MR. BAYLESS: I don't believe I have.

MR. CATANACH: Okay.

MR. BAYLESS: Thank you very much.

MR. CATANACH: Case 9190 will be taken under advisement.

(Hearing concluded.)

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 (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 do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 9990, heard by me on August 26, 1987.

David R. Catanach, Examiner
Oil Conservation Division