

**CASE 5055: Application of MERRION
& BAYLESS FOR DOWNHOLE COMMING-
LING, RIO ARriba COUNTY, N.M.**

Cont of investigation

of Oct 3

CASE No.

5055

Application,
Transcripts,
Small Exhibits

ETC.

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J. GREGORY MERRION

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MR. NUTTER: We will call Case No. 5055.

MR. DERRYBERRY: Case 5055. In the matter of Case No. 5055 being reopened pursuant to the provisions of Order No. R-4651 to permit the Applicant, Merrion and Bayless, to appear and present evidence as to the method for allocating oil production to the Devils Fork-Gallup Oil Pool and to an undesignated Greenhorn Oil Pool, and gas to the Basin-Dakota Pool in its Cañada Mesa Well No. 3 located in Unit A of Section 14, Township 24 North, Range 6 West, Rio Arriba County, New Mexico, said production having been commingled in the wellbore under authority of said Order No. R-4651.

MR. COOLEY: William J. Cooley appearing on behalf of the Applicants, Bill Cooley, Farmington, New Mexico. We have one Witness, Mr. Merrion.

(Witness sworn.)

J. GREGORY MERRION

called as a witness, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. COOLEY:

Q Mr. Merrion, state your full name, please.

A J. Gregory Merrion.

Q Where do you reside?

A In Farmington, New Mexico.

Q And how are you employed?

A I am self-employed as an independent oil and gas producer.

Q You are a graduate Petroleum Engineer?

A I am.

MR. COOLEY: Mr. Examiner, Mr. Merrion has testified numerous times before the Commission. Are his qualifications acceptable?

MR. NUTTER: Yes, sir, they are.

BY MR. COOLEY:

Q Mr. Merrion, pursuant to authority granted by the Commission in Order No. R-4651, have Merrion and Bayless proceeded to complete their Cañada Mesa Well No. 3?

A We have completed it and it was put on production on January 8.

Q I have what has been marked as Exhibit 1 and ask if that is the completion data with respect to this well?

A Yes, it is.

Q Would you proceed to summarize the information shown on that Exhibit?

A Four and a half casing was set and cemented through the Dakota interval. The Dakota was perforated 6500, 6512, and 6530 to 6570, and was sand oil fracked with gelled condensate 43,000 gallons a ton, and say 30,000 pounds of 24-inch sands, and 10,000 pounds of 10-20 sand. A bridge plug was set above the Dakota at 6400; the Greenhorn was perforated at 6320 to 26. It was attempted to sand-oil frac the Greenhorn formation with Gallup crude treated with atomine, and we pumped about 200 barrels of oil in this formation, and reached a rate of 8 barrels a minute, but when the sand hit a quarter of a pound per gallon, it sanded out and we were unable to get sand in. We perforated the Gallup formation 5422 to 38, 5458 to 62, and 5548 to 56. At this stage there was a three stage, and treat this horizon with two stages involved inbetween. However, after the first stage, the pressure rose and our rate dropped and we didn't drop anymore barrels. We did treat the entire interval with 61,698 gallons of Gallup crude, 58,000 pounds 20-40 sand; the injection rate of the first part of the treatment was 27 barrels per minute at 3100 pounds, and after dropping the balls, our rate was 12 barrels a minute at 3300 pounds. We drilled out the bridge plug, cleaned out the bottom, ran two-inch tubing, and the initial gas rate was estimated at 1750 MCF per day. The well was put on

production January 8th, 1974.

Q Mr. Merrion, is 1550 MCF per day estimated gas rate after an open flow?

A We didn't run on the FC open flow test. Of course, with the commingled production the shut-in pressure wasn't meaningless.

Q What was that?

A The shut-in pressure wasn't meaningless.

Q What about the production history on the well?

A I have a more complete production history on Exhibit No. 2.

Q I hand you what has been marked as Exhibit 2 and ask you if that is the complete production history on the well to date?

A Yes, it is.

Q Would you summarize that information, please?

A After being put on production of 2 PM on January 8th, 1974, the initial rate end of the line 24 hours later was 1000 MCF of gas per day, 150 barrels load oil per day, 50 barrels of water per day, tubing pressure over casing pressure of 700 over 1080 and 2314 barrels of load oil recovered. The gas rate has gradually declined to the current rate of about 180 MCF per day,

MERRION-DIRECT

15 barrels of water per day with a tubing pressure of 200 and a casing pressure of 600 with approximately 242 barrels of load oil yet to recover. This is the total production history to date.

Q Mr. Merrion, have you compiled a load cross section with respect to the Cañada Mesa No. 3 Well and other wells in the immediate area?

A I have compiled a cross section of the Gallup, Devils Fork-Gallup producing interval of the Cañada Mesa 3 and two other adjacent wells in the Devils Fork Field.

Q Do you have an exhibit which shows the line and the cross section on the area of the pool?

A I do.

Q I hand you what has been marked Exhibit No. 3 and ask you if that is the Exhibit to which you just referred?

A This is the Exhibit which shows the cross section line and also is an isopach map prepared by the Devils Fork Engineering Committee in 1965.

Q Does it show the cross section; the wells which compile the cross section?

A Yes, it does.

Q How are they identified?

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A With a circle around our Cañada Mesa No. 3 Well in the northeast corner of Section 14; it starts at 24 North, Range 6 West, and squares around the other two previously completed Devils Fork-Gallup producers with a line joining the three wells.

Q The two wells with the squares are actual Devils Fork-Gallup Unit producing wells?

A They're Devils Fork-Gallup Field producing wells.

Q Have you prepared and compiled a comparative log sampling of portions of logs showing the Gallup formations in the three wells shown on Exhibit 4?

A I have.

Q I hand you what has been marked Exhibit 4 and ask you if that is the cross section to which you refer?

A It is.

Q Would you please explain the significance of this Exhibit?

A Starting from the left-hand side of the Exhibit the NCR State No. 3 Well has what is a more typical Devils Fork-Gallup producing interval. The total thickness being about 15 feet and porosity running -- to my recollection -- about 12 or 13 percent. Moving back to the east about

a mile and a half, the Canyon Largo Unit No. 132 Well has about six feet of Devils Fork-Gallup pay and is thinning as you go east. Going another 6343 to the east to the Cañada Mesa No. 3 Well, which is our well in question, there are perhaps four feet in there, however, it is somewhat shaly as indicated by the Gamma Ray log and it is of poor quality. We nevertheless, did feel that we had a show on our mud log through our interval and it was one of the zones which we had perforated in our commingled completion.

Q In your opinion does that particular zone contribute any substantial amount of the oil being produced from the Gallup formation in this well?

A My feeling is that it perhaps produces a barrel or two. Let me say less than five.

Q In your opinion does this cross section give any indication as to whether there is any effective communication between the Cañada Mesa No. 3 Well and the producing wells in the Devils Fork-Gallup Pool?

A I intended to show, and you will note, that the note at the bottom of the cross section is that there is 6343 feet between the Cañada Mesa No. 3 and the Canyon Largo Unit No. 132,

and I calculated that in order for the drainage radiuses to touch it would require 725 acre drainage per well. As the cross section shows the section is quite thin and in the case of Cañada Mesa No. 3 low porosity and somewhat shaly. I feel that this type of drainage is not possible in this type of a section.

Q Then is it your opinion that there is no effective communication between the Cañada Mesa No. 3 Well and any producing well in the Devils Fork Pool?

A That is my opinion.

Q The major purpose of this Hearing, Mr. Merrion, was to arrive at allocation formulas and producing procedures. Have you compiled a tabulation of your suggested proposals with respect to this well?

A I have.

Q I hand you what has been marked Exhibit 5 and ask you if that shows what you propose?

A It does.

Q Would you outline those proposals and amplify them, please?

A Our proposal for allocation of commingled production is to allocate all gas produced to the Basin-Dakota Field and all oil produced to undesignated Gallup-

greenhorn Field.

Q When you say "undesigned Gallup-Greenhorn" by this are you asking that the Cañada Mesa No. 3 Well be exempt from the one-mile rule with respect to inclusion in the Devils Fork Field?

A That is correct.

Q What proposal do you have with respect to testing?

A We request the exemption from Basin-Dakota's deliverability testing because of the marginal gas production. We request exemption from inclusion in Devils Fork Field because tight sand, great distance from other producers, marginal oil production, and extensive running separates on bottom hole pressure and gas-hole ratio tests. Gas and oil are both being sold, therefore, monthly C 115 would represent commingled monthly GOR tests.

Q May I ask if this would be a producing GOR?

A That's correct.

Q Mr. Merrion, have you notified all operators in the Devils Fork Field of your proposal in connection with this case?

A Yes, I have.

Q How long ago were these notices sent out?

A Friday.

Q Have you had time to receive answers from all of the operators?

A I have verbally communicated with all. I have two signed waivers and verbal indications from all others that there will be no objection.

Q Have these other operators indicated that they will submit to the Commission their waivers in writing?

A There was only one question; I talked to Mr. ^{Mc Elvain} Mackelvane's Production Superintendent and he felt that they would have no objection but he had not yet had an opportunity to talk with Mr. ^{Mc Elvain} Mackelvane himself, but I had asked them and provided them with a waiver form and requested that they send it in.

Q Have you received any objections from any operators upon being notified of your proposal?

A No, I have not.

MR. COOLEY: No further questions of this

Witness.

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Merrion, as I recall, the Devils Fork-Gallup Pool is a northwest southeast trending oil pool and associated gas pool, isn't that right?

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A It has a gas cap. The shape of the pool is more deltaic, and it is not a northwest-southeast trending pool exactly.

Q In referring to your Exhibit 3 where would the Devils Fork-Gallup Pool be with respect to the Exhibit? Is the structure shown, the Devils Fork structure?

A This is an isopach map of net pay in Devils Fork-Gallup sand.

Q In the Devils Fork-Gallup?

A Right.

Q So actually, although you claim your well is an undesignated Gallup well it is an edge well to Devils Fork-Gallup, is this not correct?

A Well, there is one small producing interval; in other words, one small perforated interval in my well which has been perforated and hopefully fracked which would correlate with the Devils Fork-Gallup sand and would be on the edge of the deposit.

Q This is also shown by your Exhibit No. 4?

A That is correct.

Q It's the same sand, it's just a little bit thinner.

A Right. This is just the one small producing

well but we perforated the Upper Gallup and two other spots and the Greenhorn as well as the Dakota.

Q So rather than say that you're outside of the Devils Fork-Gallup you might say you're an edge well in Devils Fork-Gallup, isn't that correct?

A This one small producing interval could be called an edge well with Devils Fork-Gallup.

Q Now, when you were perforating this well and you showed us on Exhibit No. 1 the history of your completion techniques, did you make any individual zone tests as you were perforating the various zones?

A No, we did not.

Q Now what is your method for allocating production? How do you know how much is being produced in each of these various zones?

A I don't.

Q Now, Mr. Merrion, when the Commission approved the commingling in the wellbore of this well by Order No. R-4651, they requested that the operator of the well come in within 90 days after the completion of the well and present evidence as to the proper method of completion of the well and the allocation of production to each of those zones. How are we going to allocate the production?

A Well, I have proposed that we allocate all oil to the Gallup-Greenhorn undesignated field and all gas to the Basin-Dakota Field.

Q That's the allocation formula which you have proposed now?

A Yes, sir.

Q I see.

A Do you think you're getting anything out of the Greenhorn at all, Mr. Merrion?

A I don't think I'm getting very much. I had some indication we flowed back after pumping into the Greenhorn; all of the oil that we pumped into the hole we did not actually ever see the fluid from the Greenhorn at the surface, but after getting all the oil back that we had pumped in over and above the capacity of the casing, the well presurred up and exhibited pressure at the surface indicating fluid was still coming in, so I feel that we have established communication and have some contribution from the Greenhorn.

Q Essentially you think the gas is coming from the Dakota and the oil is coming from the Gallup?

A The Dakota in this particular area produces about ten barrels per million of condensate gravity which would

be approximately 57°. The Greenhorn, which we have very little experience with, based upon the mud log and the chromatic-graphic analysis thereon, I would have anticipated a fairly low mid-30 gravity oil. The Devils Fork Well produces approximately 40 gravity oil and Upper Gallup produces a mid-40 gravity, 45ish.

Q And what's the fluid gravities that you're producing?

A We're producing it, if you will refer back to Exhibit No. 2, of course, we're producing load oil and we are affected by the fact that we did pump 57 gravity condensate into the Dakota and 40 gallons of gravity Gallup crude into the other zones, and we have not yet quite recovered all our load oil, and yet we feel that the gravity is affected some by formation fluids at this point, and our gravity gradually declined from 47.4 down to 42 and they it has been gradually raising back up with the exception of this last one, which we think might be an error, so that we're running mid-40 gravity oil at the current time; 44-45.

Q I see. Are there any other questions of this Witness? Mr. Arnold?

FURTHER EXAMINATION

BY MR. ARNOLD:

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Q Mr. Merrion, if you attributed all the production to the Devils Fork-Gallup zone, for instance, would you be in problems so far as allowables are concerned?

A No, there would be no allowable problem there at all.

Q I was wondering what was your main concern in calling your Hearing?

A I did not call the Hearing, the Commission did.

Q I know that, right, and that answers the question I guess.

A I do want to commingle and I do want to be relieved of this testing. In other words, according to Devils Fork-Gallup field rules I would be required to run annual bottom hole pressure tests and annual gas oil ratio tests of the Gallup horizon and this would require separation, and so forth. As far as allocation, it wouldn't make any difference to me, and I don't think it would make any difference to anybody whether we allocated this. We are marginal as to oil; we are marginal as to gas; we are not affecting other Basin-Dakota producers; we are not affecting other Devils Fork-Gallup producers and --

Q (Interrupting) It is mainly just a statistical problem of assigning production to one zone and the other?

A Yes. And it is my feeling that most of the oil production is coming out of the Upper Gallup. We're getting a few barrels from the Dakota, perhaps a few from the Greenhorn, maybe a few from the Devils Fork-Gallup zone.

MR. NUTTER: I think it mainly stems from the rather complicated isometric formula in the Devils Fork-Gallup.

THE WITNESS: Right.

BY MR. ARNOLD:

Q There wouldn't be anyone who'd be gaining anything allowablewise regardless of how the total production was handled?

A This is true.

Q I noticed that you have requested an exemption from the Basin-Dakota deliverability testing. You wouldn't object to the general formation testing rules applying to this well in that there is a provision for exemption based upon total production, would you?

A What is that?

Q Two miles I believe; 12 maybe, no, 24 a year.

A Well, there is some indication that we'll produce more gas than that, and the only problem would be if you would accept a shut-in surface pressure like you do on other

wells, as to Dakota shut-ins, we wouldn't have any objection at all. The only problem would be finding something truly representative of Dakota pressure. I'm not sure really what date their shut-in pressures are truly representative of true Dakota pressures, but they're what we've been using.

MR. ARNOLD: I believe that's all I have.

MR. NUTTER: Are there any further questions of Mr. Merrion?

REDIRECT EXAMINATION

BY MR. COOLEY:

Q Mr. Merrion, I believe that you did testify that the small interval that you identify as the Devils Fork interval in the Cañada Mesa No. 3 Well not only is very thin, but also of much lower permeability and porosity as the producing area of the Devils Fork?

A That's right. Again, we indicate shaliness in one little pit which indicated some porosity, so I think it is of very poor quality.

Q And by poor quality you would mean low permeability and porosity?

A Yes.

Q Which would further tend to reduce any possibility of communication between this well and the producing well

in the Devils Fork?

A I would think so.

Q Now, so far as any variations that might result in the actual amounts of oil and gas produced from each of the three zones as opposed to the method which you propose to allocate, do you feel there would be any substantial difference or would it be insignificant?

A I think it would be insignificant.

Q And in effect, diminutive. Now, in order that the Examiner understands what you are proposing and requesting here, you are requesting that the Cañada Mesa No. 3 Well be classified as an undesignated Gallup-Greenhorn Well, or in the alternative, if it is a Devils Fork Well, that it be exempt from the Devils Fork testing procedures as set forth in the Pool Rules, is that correct?

A That is correct.

Q You would be satisfied with the O. if it still classified the well as a Devils Fork Well but exempt the well from the testing procedures?

A Yes, that's my only problem; I want to produce commingled without having to separate zones and test and so forth.

Q And the same essence is true with respect to

your request to be exempt from the deliverability in the Basin-Dakota?

A Yes.

Q This being based on the fact that both wells are by any standards marginal?

A This is correct.

MR. COOLEY: Mr. Examiner, we offer our Exhibits 1 through 7.

MR. NUTTER: Applicants Exhibits 1 through 7 will be admitted provided, however, Exhibit No. 1 should be corrected to read "Section 14" rather than "24".

MR. COOLEY: 14 is correct.

(Whereupon, Applicant's Exhibits Nos. 1 through 7 were marked for identification and admitted into evidence.)

MR. LONG: Jerry Long of USGS. Has there been any testimony as to ownership of the formation?

MR. COOLEY: May I sir?

MR. NUTTER: Yes, sir, please do.

MR. COOLEY: At the first hearing where we requested temporary authority we then testified that there is common ownership of all producing horizons.

MR. NUTTER: Are there any other questions of

this Witness? He may be excused.

Is there anything further Mr. Cooley?

MR. COOLEY: None other than a request, Mr. Examiner, that the record be left open for a period of two weeks to receive the waivers that we expect from the remaining working-interest owners and operators in the Devils Fork-Gallup Field. We anticipate that we will have a 100-percent response to this request for waivers, and inasmuch as they will have to be mailed from far-distant places we would like that the record be left open for two weeks to receive these.

MR. NUTTER: We will hold the case open for two weeks for all waivers. Mr. Manning?

MR. MANNING: Mr. Examiner, I'm E.R. Manning of El Paso Natural Gas Company and I have a statement I would like to make in this case. El Paso Natural Gas is owner of gas leases in off-set acreage to this well, has no objections to the Merrion-Bayless proposal for allocation of commingled production or for their proposal for testing, and furthermore, we will sign the waiver.

MR. COOLEY: Thank you sir.

MR. NUTTER: Thank you Mr. Manning. I have just now received a letter from Skelly Oil Company waiving

objections.

MR. COOLEY: Can it be identified as an Exhibit since the others are?

MR. NUTTER: It will be part of this record we are holding open.

MR. COOLEY: Thank you, sir.

MR. NUTTER: Is there anything further in this case?

We will take the Case under advisement.

STATE OF NEW MEXICO)
) ss.
COUNTY OF SANTA FE)

I, RICHARD L. NYE, Court Reporter, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

Richard L. Nye

COURT REPORTER

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 5055 heard by me on 2/27, 19 74
[Signature], Examiner
New Mexico Oil Conservation Commission

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NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SANTA FE, NEW MEXICO

Hearing Date FEBRUARY 27, 1974 TIME: 9 A.M.

NAME	REPRESENTING	LOCATION
DAN CURRENS	Amoco Prod. Co.	Houston, Tex
Gene Gradick	Amoco Prod. Co.	Houston, Tex.
Fred Watson	R. Q. Silverthorne	Artesia, N.M.
Ralph Gray	"	" "
Ed Lowrey	Cities Service Oil	Midland Tex
Charles R. Mitchell	Cities Service Oil Co.	Tulsa, Okla
Frank Guire	Oil Field	Midland
J. Elspury	Midland Springs et al	Midland
G. E. Summers	Atlantic Richfield Co.	MIDLAND
Hugh Christianson	" " "	"
Dan McAllen	Gulf Oil Corp.	Midland
C. H. Kalteyer	" " "	"
E. R. Manning	El Paso Natural	El Paso
Near J. Becic	EL PASO NATURAL GAS	EL PASO, TX.
Jason Kellahi	Kellahi & Son	Santa Fe
Byron Greaves	Flag-Rodman Oil Co	Midland, Tex
Gregory Merriam	Merriam & Boyles	Farmington, N.M.
H. L. Kendrick	El Paso Natural Gas	El Paso
John Seerey	Mobil Oil Corp	Midland

NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SANTA FE, NEW MEXICO

Hearing Date FEBRUARY 27, 1974 TIME: 9 A.M.

NAME	REPRESENTING	LOCATION
William J. Cooley	Merrison + Bayless	Day
Ernest Acuna	OCC	of the
L. E. Mares Jr	EPNG	FARM.
Bob McCrany	S. U. Gas	Dallas

dearnley, meier & associates

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BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
CONFERENCE ROOM, STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO
October 3, 1973

EXAMINER HEARING

IN THE MATTER OF:

Case No. 5055

Application of Merrion & Bayless
for downhole commingling,
Rio Arriba County, New Mexico.

BEFORE: RICHARD L. STAMETS,
Examiner.

TRANSCRIPT OF HEARING

dearnley, meier & associates

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1 MR. STAMETS: We will call next case 5055.

2 MR. DERRYBERRY: Case 5055, Application of

3 Merrion & Bayless for downhole commingling, Rio Arriba

4 County, New Mexico.

5 MR. COOLEY: William J. Cooley, Burr and Cooley,

6 Farmington, New Mexico.

7 MR. STAMETS: Just a second. Gentlemen, if you

8 could move your conversation on out in the hall, it

9 will help the Examiner. Thank you very much.

10 MR. COOLEY: Appearing on behalf of the applicant.

11 I have one witness we would like to have sworn, Mr. J.

12 Gregory Merrion.

13 MR. STAMETS: There are no other appearances in

14 this case?

15 *****

16 J. GREGORY MERRION

17 a witness, having been first duly sworn according to

18 law, upon his oath testified as follows:

19 DIRECT EXAMINATION

20 BY MR. COOLEY:

21 Q Mr. Marrison, state your full name and address for

22 the record.

23 A I am J. Gregory Marrison, Farmington, New Mexico.

24 Q How are you employed?

25 A I am an independent oil producer.

dearnley, meier & associates

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1 Q What is your educational background with respect to
2 any particular phase of the oil industry?

3 A I have previously given those qualifications to the
4 Commission and they are on the record. If you want
5 me to repeat them, I will.

6 Q You are a petroleum engineer?

7 A That is correct.

8 Q You have had a number of years of experience practicing
9 in that field?

10 A Yes, some 22 years.

11 MR. COOLEY: Do we need to go further into this
12 witness' qualifications?

13 MR. STAMETS: The witness' qualifications are
14 acceptable.

15 Q Mr. Merrion, are you and your partner the owners and
16 operators of the Canada Mesa Well No. 3 located in
17 Section 14, Township 24 North?

18 A We are.

19 Q 6 West, Devils Fork Field, Rio Arriba County, New Mexico?
20 Has this well been drilled within the last 30 to 40 days?

21 A I think we commenced drilling that thing in July and
22 set pipe and cemented it in August of this year.

23 Q Have you prepared a plat which shows the location of
24 the well?

25 A Yes, I have.

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- 1 Q I hand you what has been marked as Applicant's
2 Exhibit 1 and ask you to define to the Examiner what
3 you have attempted to set forth thereon.
- 4 A I tried to present a picture of the Dakota and Gallup
5 penetrations in the vicinity of our Canada Mesa Well #3
6 which is located in Township 24 North, Range 6 West,
7 Rio Arriba County, New Mexico. I have spotted all
8 Dakota wells on this plat with the typical gas well
9 symbol and the Gallup wells with a rectangle around them.
- 10 I have plotted in red the daily gas production
11 rate of the Dakota wells during June of 1973 and in
12 green the daily oil and gas rates from the Gallup wells
13 in the vicinity of the Canada Mesa #3. I have colored
14 in yellow the acreage which would be dedicated to the
15 Dakota proration unit under the Canada Mesa #3 well.
- 16 That acreage incidentally is all one Federal
17 lease, and we own the operating rights to the entire
18 Gallup and Dakota and Greenhorn intervals. The royalties
19 are the same, and all ownership is identical throughout
20 this interval.
- 21 Q Mr. Merrion, have you prepared a diagramatic sketch of
22 the method which the subject well is presently completed
23 and the proposed perforations therein?
- 24 A I have.
- 25 Q I hand you what has been marked as Exhibit 2 and ask you

dearnley, meier & associates

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1 if that is the diagrammatic sketch to which you have
2 just referred.

3 A It is.

4 Q Would you please explain to the Examiner what you have
5 portrayed on this exhibit?

6 A This exhibit presents the present physical condition
7 of the well bore with the proposed perforations. We
8 drilled a 13 3/4 inch hole to 191 feet and set 9 5/8
9 casing cemented to the surface with 150 sacks, drilled
10 a 7 7/8 inch hole to a total depth of 6,738 T.D. We
11 ran 4 1/2 casing to 6737, cemented the first stage with
12 a 665 cubic feet of cement and the second stage with
13 900 cubic feet of cement. We drilled out stage collars
14 and pressure tested our casing to 3250 pounds, and we
15 are presently waiting on approval to complete as
16 proposed and commingle production from the well.

17 Q Was the Canada Mesa No. 3 Well projected as a Dakota
18 well?

19 A Yes, it was.

20 Q Did offsetting production indicate to you any great
21 possibility of production uphole from that from either
22 the Gallup or Greenhorn formations?

23 A We were looking for the possibility of uphole shows when
24 we drilled the Canada Mesa No. 1 well which is located
25 in 24 in Section 24 in the northeast corner on the same

1 plat, and we found no significant shows in the Gallup
2 Greenhorn there.

3 We were aware that there was Gallup production
4 to the north and west, but we really did not anticipate
5 it in this well. The Greenhorn show was a complete
6 surprise to us.

7 Q What evidence have you, Mr. Merrion, that the well
8 should be perforated at the intervals which you propose
9 here and that there is a prospect now of commercial
10 production or at least marginal production from the
11 Gallup and Greenhorn formations?

12 A I think our main evidence is on our mud log.

13 Q I hand you what has been marked as Exhibit 3 and ask
14 you if that is a mud log to which you referred.

15 A It is.

16 Q Would you point out to the Examiner, please, Mr. Merrion,
17 the shows on this log or the indications whatever they
18 may be on this log that --

19 A Okay. First I might explain, of course, I'm not an
20 expert on mud logs. One of the previous witnesses,
21 Mr. Weidler's company, ran this and we think their work
22 is very good, but the solid, well, the solid red line
23 on the left or, let's see, it would be the center scale
24 on the right-hand side of the log, represents the total
25 units of mud-gas.

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1 Now, these are not calculated units, but
2 relative units. The other curve represents the
3 proponents of that gas. The yellow dotted line on
4 the left being the methane, the solid black curve in
5 the center scale on the right being the ethane, the
6 green curve being the propane, the brown curve being
7 the butane, and the orange curve being the pentanes;
8 and, of course, the appearance of the C-4's and the
9 C-5's are pentanes, and the butanes are indicative of
10 heavier hydrocarbons, oil, if you may.

11 The shows on this log, we had an impressive
12 Gallup show at about 5425, a little repeat there at
13 5450, a slight show at 5545 to 50, and lesser shows
14 at 5600 just above the 5650, those all being in the
15 Gallup. There is a scale change down at 6325 which was
16 right after we changed bits and got back on bottom.

17 At that point there is a note there the dark
18 green fourth gravity oil covered the mud pits. There
19 was a good deal of oil that surfaced. This is opposite
20 the Greenhorn formation. The way the scale is drawn,
21 the change in the scale, it doesn't appear as though
22 these curves are going out to the right very far; but
23 as you may note, the mud-gas scale is changed from
24 20 units to 50 units per division; and the parts per
25 million on the components are also of greater magnitude

1 per division.

2 There was an impressive show opposite the
3 Greenhorn; and, of course, the physical evidence of
4 what the mud logger called fourth gravity oil. I don't
5 think he actually measured the gravity of the oil, but
6 it appeared to be green and waxy oil. There are also
7 shows of gas at 6500 carrying on down to 6550 and then
8 dropping back and peaking out again at 6600, these
9 being in the Dakota formation.

10 Q Mr. Merrion, at this time do you have any idea what
11 the magnitude of production from any of the proposed
12 core productions might be?

13 A I don't expect that the magnitude of production from
14 any one of these zones will be more than marginal
15 production for that zone. This is based on analysis of
16 the log, experience in the area, and just analysis of
17 all available data.

18 Q Have you prepared an exhibit which shows comparative
19 information as well as information from this well itself
20 that would tend to support your previous statement with
21 respect to productivity or anticipated productivity?
22 Is that what this is?

23 A No. That's pressure data not from this well but
24 surrounding wells. Let me explain Exhibit 4, if you will.
25 I prepared an exhibit estimating the pressures to be

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1 encountered in the three zones which we request
2 permission to complete in, and these are based upon
3 pressures, drill stem tests or otherwise in wells which
4 had tested these formations in the surrounding area.

5 First of all, the most recent data we have on
6 the Dakota pressure in this particular area is on
7 the Merrion & Bayless Canada Mesa #1 Well which is in
8 the northeast corner of Section 24 approximately a
9 mile and a half to the southeast. Based on the shut-in
10 casing pressure initially of 2315 pounds per square
11 inch, it is estimated or calculated total bottomhole
12 pressure in that well in the Dakota formation is 2707
13 psi.

14 There was a drill stem test of the Greenhorn
15 formation in the Continental Haynes Well in Section 9,
16 24 North, Range 5 West, which would be approximately
17 four miles east by northeast of our subject well. The
18 shut-in pressure on that drill stem test was 2552 psi.

19 There are three drill stem tests within an
20 approximate six to eight-mile radius which were tabulated
21 below the Gallup formation. The one on the Redfern
22 & Herd, Largo Spur #1 shut-in at 1955 psi. Shut-in
23 pressure on the Skelly Jicarilla B-10, 2120 psi.

24 Shut-in pressure on the Skelly Jicarilla C-16,
25 2090 psi. From that, we anticipate that the pressure

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1 on the Gallup formation would be approximately 2100
2 pounds per square inch. Tabulated below that is this
3 Dakota Gas Sales Line Pressure during June of 1973,
4 which averaged 270 psi.

5 It was my purpose in presenting this exhibit
6 to show that the producing pressure if these formations
7 were all commingled would be far less than any of the
8 shut-in pressures of the individual formations and
9 hence would have little tendency or no tendency to
10 permit any crossflow between the formations down the hole.

11 Q Thus you would not anticipate that the intrusion of
12 any substance from any of the three perforated zones
13 would enter one of the other zones or what you have
14 referred to as crossflow?

15 A As long as we are producing.

16 Q If this application is granted, what would be the
17 proposed method of producing and testing the various
18 formations?

19 A What I would like to do is selectively perforate and
20 fracture the zones indicated on Exhibit 2, run tubing,
21 swab the well if necessary, and produce it for 60 days
22 commingled with a test allowable assigned.

23 At the end of that period I would come back to
24 the Commission either with a proposal as to how the
25 production might be allocated and how the well might be

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1 produced so as to prevent waste, or in the event it
2 appeared desirable at that time to propose a method
3 of further isolating zones and testing them to get
4 additional data in order to come up with this
5 recommendation.

6 Q So to summarize what you have said, your most recent
7 testimony, you would propose initially for a period of
8 60 to 90 days to produce and test the combined flow
9 of all three perforated intervals; is that correct?

10 A Yes, sir. I think this would be necessary to clean up
11 the well, get the sands out of the various formations
12 and to stabilize production in order that we could get
13 representative tests if that were deemed necessary.

14 Q This would be a representative test of the combined
15 flow after a period of 60 to 90 days; would it not?

16 A I think it would.

17 Q Then at that point in time if the Commission felt it
18 necessary, would you be willing to individually test
19 each zone?

20 A I would.

21 Q Would it not be premature to anticipate conducting those
22 tests until you are aware as to what the combined flow
23 would be?

24 A That's true. It's possible that the combined flow would
25 be less than marginal gas production from the Dakota and

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1 less than marginal oil production in the Gallup in
2 which case there would be one complication, that being
3 the Devils Fork Proration Formula which is a volumetric
4 equivalent withdrawals formula; and I would anticipate
5 if we had marginal production from the combined stream
6 possibly getting waivers of objection from the other
7 Devils Fork operators in order that this may not be
8 included in Devils Fork or --

9 MR. ARNOLD: May I interrupt at this point?

10 THE WITNESS: Yes.

11 MR. ARNOLD: Are you saying marginal when you
12 mean to be saying non-marginal?

13 THE WITNESS: Well, less than non-marginal or
14 marginal is what I'm talking about.

15 MR. ARNOLD: Well, you wouldn't worry about it if
16 they were all marginal wells in any event; would you?

17 THE WITNESS: Well, the only thing is that, of
18 course, Devils Fork is on a volumetric equivalent
19 withdrawals formula which requires a bottomhole pressure
20 and a gas-oil ratio each year, and it requires a slipping
21 into your formula the amount of gas produced from the
22 oil area and the amount of oil produced from the area.
23 For this reason, it would be necessary to have some
24 estimate of what that was.

25 MR. ARNOLD: But your larger problem would come

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1 if you had non-marginal production from those zones;
2 wouldn't it?

3 THE WITNESS: Yes, and I think we could work
4 that out in order to test these different zones
5 individually yearly with a setup with packers and so
6 forth; but even with marginal production, there is
7 some problem which I think is very minor; and I think
8 the Devils Fork operators would agree to either
9 classifying this as non-Devils Fork as undesignated
10 Gallup or I think they might agree to an allocation
11 formula where we allocated all the oil to the Gallup
12 and all the gas to the Dakota which would give them
13 additional oil for the formula and less gas.

14 Q (By Mr. Cooley) I'd like to interject some questions
15 to clarify the record with respect to the Canada Mesa
16 #3 well's proximity in relationship with the Devils
17 Fork Gallup Pool. It is correct, is it not, that none
18 of the acreage which you propose to dedicate to the
19 well is within the defined limits of the Devils Fork
20 Pool?

21 A That's true.

22 Q It is, however, within one mile. The proposed well
23 is within one mile of acreage which is dedicated?

24 A That is correct, and therefore, according to Devils
25 Fork rules it is to be covered by the Devils Fork field

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1 rules.

2 Q If it's producing from the same formation; is that
3 correct? From the same producing interval?

4 A From the Gallup, yes.

5 Q Now, have you compared Devils Fork logs with the log
6 of the Merrion & Bayless Canada Mesa #3 well?

7 A I have.

8 Q Is the Gallup development that you have noted in the
9 Canada Mesa No. 3 well relative with the main producing
10 zone in the Devils Fork?

11 A There is one of the proposed sets of perforations that
12 is one of the lesser zones or less impressive zones in
13 the Gallup. That zone's perforated interval is 5548
14 to 56.

15 There is a little bit of difference in depths
16 here on the mud log. I think about ten feet. That would
17 show up there at 5545 to 50 on the mud log. I think
18 that the zone, that particular zone is correlative with
19 the main Devils Fork pay. It is fully developed in
20 this well; and due to its anticipated low permeability
21 and long distance from existing Devils Fork production,
22 I don't think that it would physically offset the
23 performance of the reservoir very much.

24 If the Commission felt like there was an
25 objection on the commingling, we would elect not to

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1 perforate it. We feel the main Gallup zone is at
2 5430 to 40.

3 Q That's in the Canada Mesa well?

4 A Yes.

5 Q Which is not present or being produced at all in the
6 Devils Fork?

7 A Well, that zone is perforated in a couple of wells in
8 Devils Fork; but it is not the main Devils Fork pay,
9 and it is not the zone which the volumetric withdrawals
10 formula was assigned to handle.

11 Q In summary, for all practical purposes do you feel
12 that there would be any communication between any of
13 the proposed perforations in the Canada Mesa #3 well
14 and any well producing from the Devils Fork field?

15 A No, I don't think so. I think it's too tight and too
16 far removed to actually effectively communicate.

17 Q Do you feel that the presence of uphole Gallup and
18 Greenhorn oil on the Dakota formation or perforations
19 would cause any waste or damage to the Dakota formation?

20 A No, I don't. This question was brought up in a
21 conversation with one of the members of the USGS, and
22 it was something that really hadn't even occurred to me.
23 However, we seem to have oil and gas producing zones
24 in many of our gas wells, Mesa very particularly, and
25 although sometimes the oil which gives producing problems,

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1 on a low productivity gas well I have never considered
2 the presence of crude oil on a gas producing formation
3 as detrimental.

4 However, when it was brought up from the USGS,
5 I did consult with some other knowledgeable people,
6 petroleum engineers, and asked their opinion; and it
7 was pointed out to me that, of course, they used to
8 fracture all the Pictured Cliffs and Mesa V Well in the
9 San Juan Basin in the early days with diesel oil with
10 no ill effects.

11 Currently in the Dakota formation, Tenneco in
12 the Gallegos area has gone to jelled oil and sand
13 for completion. They are trying to keep all the water
14 off the Dakota formation entirely. They feel that this
15 is really the answer to completing a Dakota well using
16 the jelled oil.

17 I have heard of one other completion which I
18 think is presently taking place up there, and this is
19 hearsay. Amoco is using a K-1 Dispersion which is
20 a very heavy viscous low-gravity black oil disbursed
21 with water into a very viscous glob and using this
22 to fracture a well, a Dakota well, and this is capable
23 of carrying a great deal of sand and packing a wide
24 fracture.

25 There is no results on that so I don't know if

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- 1 we can draw on that any conclusions; but other people
2 apparently do not feel that oil on the Dakota is
3 harmful.
- 4 Q Is this your conclusion?
- 5 A This is my conclusion.
- 6 Q Is it based upon drawing upon the entire reservoir
7 of knowledge that you have with respect to the history
8 of the field and what's going on there now?
- 9 A Yes.
- 10 Q Although you do not have actual tests of these formations
11 obviously since they have not been perforated, I believe
12 you did state that you anticipate the total combined
13 flow to be less than non-marginal. I want to clear up
14 that one. Less than non-marginal wells in the Dakota,
15 less than non-marginal wells in the adjacent Gallup
16 field and so forth?
- 17 A Yes. I would think that the total oil production from
18 the combined stream here will probably be in the
19 neighborhood of around 40 barrels a day I hope. This
20 is less than 40 acres for the Gallup which is your
21 shallowest zone.
- 22 I would suspect that the combined gas flow
23 would be less than one-half million, and one-half million
24 per day is marginal for Dakota as I understand it.
- 25 Q If production is greater than anticipated or any other

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- 1 developments that are unexpected occurred, you are
2 willing upon direction by this Commission to conduct
3 individual tests of each zone; is that correct, isolate
4 each zone and test it?
- 5 A Yes.
- 6 Q That does involve certain expense; does it not?
- 7 A It involves quite a bit, yes.
- 8 Q You would prefer not to do that unless it was indicated?
- 9 A That's correct.
- 10 Q By the 60 to 90 day flow period --
- 11 A Correct.
- 12 Q --on the combined flow? Were Exhibits 1 through 4
13 prepared by you or under your supervision?
- 14 A They were all prepared by me with the exception of the
15 Colorado Plateau Well Log.
- 16 Q This was prepared at your request?
- 17 A Prepared at my request, yes.
- 18 MR. COOLEY: Mr. Examiner, we offer into
19 evidence Exhibits 1 through 4.
- 20 MR. STAMETS: Without objection, these Exhibits
21 will be admitted.
- 22 Q Is there anything you want to add?
- 23 A I would like to add, if I may, that the Greenhorn
24 formation is an unproven formation. I know of no
25 commercial production from it in the entire San Juan

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1 Basin. I know that there have been some completions
2 attempted. I think it is commingled with some wells
3 in the Lindrith-Dakota-Gallup area, and I believe it's
4 commingled with some wells in the Skredo area which
5 straddles this area.

6 It did have impressive show on this particular
7 well with oil to the pits, and I don't know how this
8 formation would ever be developed if it were not
9 permitted to be commingled with something. The Gallup
10 in this well likewise appears to be marginal, not the
11 type of thing one would drill a new well for.

12 I think that, of course, we are running these
13 mud logs on most wells that we drill and trying to
14 evaluate small stringers of shows in all of the wells
15 we drill. I think one of the problems in the San Juan
16 Basin in the years past have been that people have
17 drilled a well for one zone and passed up a lot of
18 things that were marginal.

19 I think we have to devise a way in the San Juan
20 Basin to make these things attractive to open up in
21 order that we can recover all the reserves that might be
22 present in an area; and I think that for that reason
23 we would certainly be encouraging additional recovery
24 and certainly prohibiting waste by approval of this
25 application.

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1 Q If I understand you correctly, Mr. Merrion, you feel
2 definitely neither the Gallup nor the Greenhorn
3 formations standing on their own two feet would justify
4 the drilling of another well to twin, so to speak, the
5 Mesa, Canada Mesa #3 well?

6 A That's correct.

7 Q Economics just aren't present? Then it's your conclusion
8 if it is ever to be recovered and produced it will have
9 to be recovered in the fashion in which you propose to
10 do here?

11 A Yes.

12 MR. COOLEY: We have nothing further.

13 MR. STAMETS: Mr. Arnold?

14 *****

15 CROSS-EXAMINATION

16 BY MR. ARNOLD:

17 Q Mr. Merrion, unfortunately you have anticipated most
18 of my questions here, so this won't take long, but just
19 by matter of anticipating the problems that might come
20 up down the road in the Basin, Dakota gas, suppose you
21 did complete a well which would, say, make a million and
22 a half in the Dakota and maybe three-quarters of a million
23 out of the Gallup, cubic feet of gas, there really
24 wouldn't be any practical way of downhole commingling
25 a well like that and still properly prorating the gas,

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- 1 would there? Or do you anticipate that there would
2 be any way that a well like that could be commingled?
- 3 A Yes, I think it could. I'm not prepared to offer it
4 into evidence because I don't have enough copies, but
5 Baker royalty has got a downhole.
- 6 Q You mean where you would separate the zones actually?
- 7 A Set packers between the zones with sliding sleeves
8 opposite the upper two zones and a choke at the bottom.
- 9 Q I really wasn't meaning to question you about the
10 mechanical means of separating the zones. The question
11 was aimed toward the fact that if two zones were
12 capable of the amounts that I pointed out, downhole
13 commingling the way you are proposing it wouldn't be
14 practical; would it?
- 15 A The way --
- 16 Q I mean without separating the zones?
- 17 A No. They would have to be separated in order to be
18 tested and get deliverability tests on them; but this
19 could be done by the installation of packers, sliding
20 sleeves and --
- 21 Q You would operate it as a dual completion?
- 22 A No, I would not.
- 23 Q To the extent --
- 24 A No. I would operate it as a commingled well, but I
25 would be in a position to open or close the sleeves and

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1 isolate the different zones and test it periodically.

2 Q Don't you think you would be opening yourself to
3 objections from offsets if you were producing X cubic
4 feet of gas and balancing it against a Basin-Dakota
5 allowable and not knowing if they didn't know for sure
6 how much of that gas was coming from the Dakota and
7 how much was coming from the Gallup? Wouldn't this
8 complicate the proration procedures?

9 A Well, it would certainly complicate the proration
10 procedures in the Basin-Dakota; and as it now stands,
11 it would complicate the proration procedure in the
12 Devils Fork and Gallup if you didn't know; but I would
13 propose under those conditions that we set packers to
14 isolate the Dakota, the Greenhorn, and the Gallup, set
15 sliding sleeves opposite the upper two zones and a choke
16 in the bottom or a choke nipple in the bottom of the
17 tubing so that we could blank off any zone, run a
18 deliverability test on any zone at any time and base
19 our calculation of gas from each zone accordingly.
20 Therefore, I think we would know where the gas was
21 coming from.

22 Q At that rate, you would just take the total, I mean,
23 if you commingle downhole in any way then you have
24 one volume of gas at the meter; and you would arrive
25 at a percentage of the total stream production which

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1 you would allocate to the Gallup. Is that what you
2 have in mind?

3 A Yes.

4 MR. COOLEY: Any zone that tested gas.

5 MR. STAMETS: I have possibly one question
6 that I think would clarify this point. If I understand
7 your testimony correctly, if this should turn out to
8 be a barnburner of a well, you would anticipate that
9 you would be back in here at the end of the 60 days
10 for a hearing in order to determine how this well
11 should be commingled or dually completed or how it
12 should be allocated?

13 THE WITNESS: Yes, I have given a great deal
14 of thought to all eventualities; and when we finally
15 got down to it, we decided there were so many eventualities
16 that maybe we better get a temporary order.

17 MR. STAMETS: If it's a very poor well, this
18 would not be a problem?

19 A Right, but I would anticipate coming back at the end
20 of 60 days if our total stream was making a million and
21 a half and 80 barrels a day or something like that,
22 then we would propose to go on in and separately test
23 each zone and find out exactly what each zone was
24 producing and leave our equipment there in shape where
25 it could be annually testing each zone.

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1 In order to do that, we could accurately
2 allocate the production to the different horizons. My
3 honest feeling is that it is an economic thing essentially
4 because I don't anticipate a real large well from any
5 one of these zones.

6 Q (By Mr. Arnold) I understand that. Are you through
7 answering that question?

8 A Yes, I think so.

9 Q Are there any non-marginal wells in the Devils Fork
10 Gallup at this time that you know of?

11 A Well, only to the extent, I don't think so. There may
12 be some gas wells in the gas cap which are still prorated,
13 but I can check that out just looking at the production
14 last year and those of the gas wells which seem to be
15 producing at capacity during most of the year.

16 Q Actually if all the wells in the Devils Fork Gallup are
17 marginal at this time, there is no way you could
18 effect it?

19 A The volumetric formula would mean nothing.

20 Q All right.

21 A And I think we are approaching that date if not there
22 already.

23 MR. ARNOLD: I think that that is all the
24 questions I have.

25 MR. COOLEY: Mr. Examiner, I think at this point

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1 in view of the testimony of Mr. Merrion that we
2 should make it clear that the application, if it does
3 not so state on its face, is for a temporary order.
4 Now, I would suggest to the Examiner a six-month
5 temporary order with monthly testing reports of
6 production which you will have anyway; but in connection
7 with this case I suggest that the combined flow be
8 reported and brought to the Commission's attention and
9 that a provision could easily be entered in the order
10 that if the combined flow is such as to indicate the
11 possibility or probability of any zone being non-marginal
12 that the Commission or Director, of course, would be
13 at liability to call the matter up even earlier than
14 six months if necessary.

15 MR. STAMETS: Mr. Cooley, the only problem I
16 would foresee in that would be the problem in accounting
17 for the production and getting it back to the zones for
18 our statistical records, you know, as to what was Gallup
19 what was Greenhorn, what was Dakota. It might well be
20 that this 60 days would be plenty long enough for a
21 test period and then come up with some sort of a
22 determination even under temporary rules to prorate this
23 back to the individual pools.

24 So possibly we can work something out along that
25 line with, say, two or three timetables in it.

dearnley, meier & associates

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1 MR. COOLEY: Do you see any objection to this
2 approach that the Examiner is speaking of?

3 THE WITNESS: I'm not entirely sure what he's
4 saying except that he thinks it should be less than
5 six months. So I think it does depend upon what happens.
6 I'd like to see it stabilized to some degree.

7 MR. ARNOLD: Were you anticipating being the
8 gas transporter yourself on this? I mean, would you
9 get the gas delivered or El Paso as a transporter or as
10 a producer?

11 THE WITNESS: Their gathering line crosses our
12 40 acres we are located on, and I think in order that
13 we are hooked up immediately upon completion we may
14 lay a temporary line; but eventually they will hook us
15 up as a wellhead.

16 MR. ARNOLD: I was thinking in order to take
17 care of Mr. Stamet's objection about statistics the
18 problem you get into there, if El Paso is the gas
19 transporter they will report one volume. If it ever
20 did become necessary to separate out volumes and allocate
21 to the formations, this is almost going to have to be
22 done by you as a transporter because they use the
23 Transporter's Report in taking volumes that they use
24 on a proration schedule, because I think the C-111 gets
25 here about two or three weeks ahead of the C-115.

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1 THE WITNESS: I don't know the mechanics of
2 working this thing out, but we would sure be glad to
3 make out the paperwork.

4 MR. ARNOLD: I believe that would be one way
5 to do it. All right.

6 THE WITNESS: El Paso, and incidentally our
7 offset operators, I wasn't so concerned about getting
8 waivers from everybody in the area, because I felt it
9 was advertised and it was a hearing; but I did try to
10 contact everybody whom I thought would be interested
11 and might possibly offer any objection. We have gone
12 over this very completely with El Paso who owns acreage
13 in the area.

14 They are in favor of it. Skelly is an interest
15 owner in our well, and they own additional wells in
16 the area. They are in favor of it. Mesa Petroleum
17 offsets us to the south. They are successors to Pupco.
18 They have written us a letter saying they have no
19 objection, but El Paso is quite interested in it.

20 I'm sure they would cooperate and we would be
21 happy to make out the paperwork in order that you would
22 have the split that you are interested in.

23 MR. ARNOLD: I believe that's all.

24 MR. STAMETS: I've got a few short questions
25 for which I hope there are a few short answers.

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1 CROSS-EXAMINATION

2 BY MR. STAMETS:3 Q The gas well is not completed at the present time; is
4 that right?

5 A That's correct.

6 Q Do you foresee any fluid compatibility problems between
7 the zones?

8 A No, I do not.

9 Q Do you anticipate that if the gas well is a low-marginal
10 gas well that it would likely ever be shut-in?

11 A No, I do not.

12 Q Why don't you wish to complete and test the individual
13 zones in a more conventional manner? In other words,
14 what I'm saying is test the Gallup for awhile, and
15 then plug it off and test the Greenhorn for awhile and
16 plug it off.

17 A Because of the expense involved.

18 Q Would it also be related to what you feel is the quality
19 of the Gallup and the Greenhorn reservoirs?

20 A Well, yes. I believe they are marginal reservoirs.

21 Q Where would you propose to set the tubing if you are
22 allowed this temporary period of commingling?

23 A I would set it opposite the Dakota.

24 MR. STAMETS: That's all the questions I have.

25 Mr. Cooley, do you have anything further?

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MR. COOLEY: No, I believe not.

MR. STAMETS: Any other questions? The witness may be excused. If there is nothing further in this case, we will take the case under advisement and adjourn this hearing.

(Whereupon, the hearing was adjourned.)

REPORTER'S CERTIFICATE

I, JANET RUSSELL, a Court Reporter, in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me; and that the same is a true and correct record of the said proceedings to the best of my knowledge, skill and ability.

Janet Russell
COURT REPORTER

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 5055 heard by me on October 3, 1973.
Richard F. Stamey, Examiner
New Mexico Oil Conservation Commission

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I N D E X

WITNESS

J. GREGORY MERRION

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Direct Examination by Mr. Cooley 3

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Applicant's

Offered

Admitted

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19

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MR. UTZ: Now call Case No. 5055.

MR. CARR: Case 5055, Application of Merrion & Bayless for downhole commingling, Rio Arriba County, New Mexico.

MR. UTZ: Do we have anyone here representing Merrion & Bayless?

(No response.)

MR. UTZ: We've had no correspondence regarding this case, so the case will be set to the end of the docket. If no one is here at that time, we will dismiss it.

* * * * *

MR. UTZ: We will, again, call Case 5055.

MR. CARR: Case 5055, Application of Merrion & Bayless for downhole commingling, Rio Arriba County, New Mexico.

MR. UTZ: Is there anyone present representing Merrion & Bayless?

(No response.)

MR. UTZ: Since we have had no word from Merrion & Bayless, Case 5055 will be dismissed. The hearing is adjourned.

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

CASE NO. 5055
Order No. R-4651-A

IN THE MATTER OF CASE NO. 5055
BEING REOPENED PURSUANT TO THE
PROVISIONS OF ORDER NO. R-4651,
RIO ARRIBA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 27, 1974, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 25th day of June, 1974, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That by Order No. R-4651, dated November 16, 1973, Merrion and Bayless was authorized to complete its Canada Mesa Well No. 3, located in Unit A of Section 14, Township 24 North, Range 6 West, NMPM, Rio Arriba County, New Mexico, in such a manner as to produce gas from the Basin-Dakota Pool, and oil from the Gallup formation adjacent to the Devils Fork-Gallup Pool and oil from an undesignated Greenhorn Pool, commingled in the wellbore, through a single string of tubing.

(3) That Merrion and Bayless has completed said well in the above-described manner and Case No. 5055 was reopened pursuant to the provisions of Order No. R-4651 to determine a formula for the allocation of production to each of the zones open to the wellbore in said well.

(4) That the evidence presented indicates that the Gallup formation in the subject well is not in communication with the Gallup formation of the Devils Fork-Gallup Pool and that production from the Gallup formation in the subject well will not have any significant impact on the volumetric calculation of allowables for wells in said pool.

(5) That production tests of the subject well indicate that all oil produced from the subject well should be attributed to the undesignated Gallup-Greenhorn Pool completed in the well, and that all of the gas production from the subject well should be attributed to the Basin-Dakota Pool.

-2-
CASE NO. 5055
Order No. R-4651-A

(6) That in order to prevent waste and protect correlative rights, Order No. R-4651 should remain in effect until further order of the Commission.

IT IS THEREFORE ORDERED:

(1) That Orders Nos. (1), (2), and (3) of Order No. R-4651, dated November 16, 1973, are hereby stricken, and the following substituted therefor:

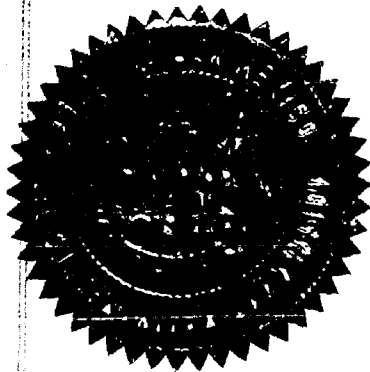
"(1) That the applicant, Merrion & Bayless, is hereby authorized to complete its Canada Mesa Well No. 3, located in Unit A of Section 14, Township 24 North, Range 6 West, NMPM, Rio Arriba County, New Mexico, in such a manner as to produce gas from the Basin-Dakota Pool and oil from an undesignated Gallup-Greenhorn Pool commingled in the wellbore, through a single string of tubing."

"(2) That all gas production from said well shall be attributed to the Basin Dakota Pool, and all oil production from said well shall be attributed to the undesignated Gallup-Greenhorn Pool completed in the well."

"(3) That the aforesaid Canada Mesa Well No. 3 shall be exempt from the special rules pertaining to the Devils Fork-Gallup Pool."

(2) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.



STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

I. R. Trujillo
I. R. TRUJILLO, Chairman

ALEX J. ARMIJO, Member

A. L. Porter, Jr.
A. L. PORTER, Jr., Member & Secretary

S E A L

jr/

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE NO. 5055
Order No. R-4651

APPLICATION OF MERRION & BAYLESS
FOR DOWNHOLE COMMINGLING, RIO
ARRIBA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on October 3, 1973, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 16th day of November, 1973, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant is the owner and operator of the Canada Mesa Well No. 3, located in Unit A of Section 14, Township 24 North, Range 6 West, NMPM, Rio Arriba County, New Mexico.
- (3) That said well has discovered gas production in the Basin-Dakota Pool, oil production in the Gallup formation adjacent to the Devils Fork-Gallup Oil Pool, and oil production from an undesignated Greenhorn Oil Pool.
- (4) That based on tests during drilling, all three zones appear to be capable of only low marginal production which will not justify the completion of the well as single oil well or a multiply completed oil and gas well.
- (5) That the applicant seeks to temporarily complete and produce said well with the Gallup, Greenhorn, and Dakota formations commingled in the same wellbore and to evaluate such production to determine the most proper and efficient methods of ultimate completion, production, and determination of production from the three individual zones.

-2-

Case No. 5055
Order No. R-4651

(6) That approval of the requested temporary commingling may result in the recovery of additional oil and gas from each of the commingled zones in the subject well, thereby preventing waste and will not violate correlative rights.

(7) That the reservoir characteristics of each of the zones in the subject well are such that underground waste would not be caused by the proposed temporary commingling in the wellbore.

(8) That the mechanics of the proposed temporary completion are feasible and in accord with good conservation practices.

(9) That applicant should request a hearing within 60 days after the date of first commingled production wherein he will present evidence as to the proper manner of completion and/or method of determining production from the individual commingled zones.

(10) That, in any event, the commingling authority granted in this order should terminate and be of no further effect after 90 days from the date of initial commingled production from said well.

(11) That to afford the Commission the opportunity to assess the potential for waste and to expeditiously order appropriate remedial action, the operator should notify the Aztec district office of the Commission any time the subject well is shut in.

IT IS THEREFORE ORDERED:

(1) That the applicant, Merrion & Bayless, is hereby authorized to temporarily complete its Canada Mesa Well No. 3, located in Unit A of Section 14, Township 24 North, Range 6 West, NMPM, Rio Arriba County, New Mexico, in such a manner as to produce gas from the Basin-Dakota Pool and oil from the Gallup formation adjacent to the Devils Fork-Gallup Pool and oil from an undesignated Greenhorn Pool, commingled in the wellbore, through a single string of tubing.

(2) That the operator of said well shall notify the Commission of the date of first commingled production and within 60 days, thereafter, shall file an application for a hearing wherein the applicant shall present evidence as to the proper method of completion of the well and allocation of production to the individual zones.

(3) That the temporary commingling authority set out in this order shall expire 90 days after the date of first commingled production from said well.

-3-

Case No. 5055
Order No. R-4651

(4) That after the date of first commingled production the operator of said well shall immediately notify the supervisor of the Commission's Aztec district office any time the subject well is shut in.

(5) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION



F. R. Trujillo
F. R. TRUJILLO, Chairman

ALEX J. ARMIJO, Member

A. L. Porter, Jr.
A. L. PORTER, Jr., Member & Secretary

S E A L

dr/

CASE 5055: (Reopened)

In the matter of Case No. 5055 being reopened pursuant to the provisions of Order No. R-4651 to permit the applicant, Merrion and Bayless, to appear and present evidence as to the method for allocating oil production to the Devils Fork-Gallup Oil Pool and to an undesignated Greenhorn Oil Pool, and gas to the Basin-Dakota Pool in its Cañada Mesa Well No. 3 located in Unit A of Section 14, Township 24 North, Range 6 West, Rio Arriba County, New Mexico, said production having been commingled in the wellbore under authority of said Order No. R-4651.

CASE 5175: Application of Flag-Rodfern Oil Company for an unorthodox oil well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks, as an exception to the West Sawyer-San Andres special pool rules, authority to drill a well at an unorthodox location 1980 feet from the South line and 660 feet from the East line of Section 23, Township 9 South, Range 37 East, Lea County, New Mexico.

CASE 5176: Application of R. Q. Silverthorne for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Yates formation in the perforated interval from 2485 feet to 2506 feet in his Kenwood Well No. 4 located in Unit K of Section 30, Township 18 South, Range 31 East, Shugart Pool, Eddy County, New Mexico.

CASE 5177: Application of Atlantic Richfield Company for the amendment of Order No. R-4549, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-4549, which order established project rules for the Empire-Abo Pressure Maintenance Project, Eddy County, New Mexico, to raise the maximum project allowable from the present 40,192 barrels per day to 40,555 barrels per day because of additional lands committed to the unit, and to provide for administrative approval for water injection wells in said project, and for inclusion of a reservoir voidage replacement credit for water injected into the Abo reservoir; applicant further seeks the amendment of Order No. R-4549 to provide that the maximum project allowable of 40,555 barrels per day would be achieved upon injection of "all available residue gas" rather than "70% of the produced gas", as now provided in the project rules. Applicant further seeks the establishment of a gas injection credit "bank", against which injection credit could be drawn in order to maintain full allowables during such times as injection plant shut-downs, etc.

CASE 5178: Application of El Paso Natural Gas Company for the amendment of Order No. R-1670 and Order No. R-333-F-1, San Juan Basin, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Rules 8(C)3 and 10(B)2 and 3 of the Northwest New Mexico Gas Proration Rules as prescribed by Order No. R-1670, as amended, and Section 1 B of Chapter I of the Gas Well Testing Rules for Northwest New Mexico as prescribed by Order No. R-333-F-1, as amended, to provide for a 90-day period within which to conduct deliverability tests on newly completed wells. Applicant further seeks the amendment of the gas well testing rules to provide a production penalty for delinquency in testing non-prorated wells in the same manner as such penalty is currently applied to delinquency in testing prorated wells. Applicant further seeks clarification for the classification of exempt-marginal status for wells upon which tests are not required.

DOCKET: EXAMINER HEARING - WEDNESDAY - FEBRUARY 27, 1974

9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM,
STATE LAND OFFICE BUILDING - SANTA FE, NEW MEXICO

The following cases will be heard before Daniel S. Nutter, Examiner, or Richard L. Stamets, Alternate Examiner:

CASE 5173: (Continued from the February 13, 1974, Examiner Hearing)

Application of Mobil Oil Corporation for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the W/2 of Section 3, Township 23 South, Range 27 East, South Carlsbad Field, Eddy County, New Mexico, to be dedicated to its Maude Rickman Com Well No. 1 located in Unit L of said Section 3. Also to be considered will be the cost of drilling and completing said well and the allocation of such costs, as well as actual operating costs and charges for supervision. Also to be considered is the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 5128: (Continued from the January 30, 1974, Examiner Hearing)

Application of Gulf Oil Corporation for a non-standard gas proration unit and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 160-acre non-standard gas proration unit comprising the NE/4 SW/4 and W/2 SE/4 of Section 28 and the NW/4 NE/4 of Section 33, both in Township 21 South, Range 37 East, Blinebry Gas Pool, Lea County, New Mexico, to be simultaneously dedicated to its J. N. Carson Wells Nos. 4 and 9 located in Units O and K, respectively, of Section 28.

CASE 5174: Application of Gulf Oil Corporation for three dual completions and for the amendment of Order No. R-2909, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete three wells for water injection into its Central Drinkard Unit Waterflood Project in Township 21 South, Range 37 East, Lea County, New Mexico, and for production as follows:

- H. T. Mattern Well No. 8, Unit I, Section 30: Blinebry Oil Pool;
- W. T. McCormack Well No. 13, Unit A, Section 32: Tubb Gas Pool;
- J. N. Carson Well No. 4, Unit O, Section 28: Blinebry Gas Pool;

Applicant further seeks the amendment of Order No. R-2909, which authorized said waterflood project, to provide for administrative approval of additional dual injection-production wells in said unit area.

CASE 5055: (Reopened)

*Jack [unclear]
D. [unclear]*

In the matter of Case No. 5055 being reopened pursuant to the provisions of Order No. R-4651 to permit the applicant, Merrion and Bayless, to appear and present evidence as to the method for allocating oil production to the Devils Fork-Gallup Oil Pool and to an undesignated Greenhorn Oil Pool, and gas to the Basin-Dakota Pool in its Cañada Mesa Well No. 3 located in Unit A of Section 14, Township 24 North, Range 6 West, Rio Arriba County, New Mexico, said production having been commingled in the wellbore under authority of said Order No. R-4651.

CASE 5175: Application of Flag-Redfern Oil Company for an unorthodox oil well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks, as an exception to the West Sawyer-San Andres special pool rules, authority to drill a well at an unorthodox location 1980 feet from the South line and 660 feet from the East line of Section 23, Township 9 South, Range 37 East, Lea County, New Mexico.

CASE 5176: Application of R. Q. Silverthorne for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Yates formation in the perforated interval from 2485 feet to 2506 feet in his Kenwood Well No. 4 located in Unit K of Section 30, Township 18 South, Range 31 East, Shugart Pool, Eddy County, New Mexico.

CASE 5177: Application of Atlantic Richfield Company for the amendment of Order No. R-4549, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-4549, which order established project rules for the Empire-Abo Pressure Maintenance Project, Eddy County, New Mexico, to raise the maximum project allowable from the present 40,192 barrels per day to 40,555 barrels per day because of additional lands committed to the unit, and to provide for administrative approval for water injection wells in said project, and for inclusion of a reservoir voidage replacement credit for water injected into the Abo reservoir; applicant further seeks the amendment of Order No. R-4549 to provide that the maximum project allowable of 40,555 barrels per day would be achieved upon injection of "all available residue gas" rather than "70% of the produced gas", as now provided in the project rules. Applicant further seeks the establishment of a gas injection credit "bank", against which injection credit could be drawn in order to maintain full allowables during such times as injection plant shut-downs, etc.

CASE 5178: Application of El Paso Natural Gas Company for the amendment of Order No. R-1670 and Order No. R-333-F-1, San Juan Basin, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Rules 8(C)3 and 10(B)2 and 3 of the Northwest New Mexico Gas Proration Rules as prescribed by Order No. R-1670, as amended, and Section 1 B of Chapter I of the Gas Well Testing Rules for Northwest New Mexico as prescribed by Order No. R-333-F-1, as amended, to provide for a 90-day period within which to conduct deliverability tests on newly completed wells. Applicant further seeks the amendment of the gas well testing rules to provide a production penalty for delinquency in testing non-prorated wells in the same manner as such penalty is currently applied to delinquency in testing prorated wells. Applicant further seeks clarification for the classification of exempt-marginal status for wells upon which tests are not required.

DOCKET: EXAMINER HEARING - WEDNESDAY - FEBRUARY 27, 1974

9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM,
STATE LAND OFFICE BUILDING - SANTA FE, NEW MEXICO

The following cases will be heard before Daniel S. Nutter, Examiner, or Richard L. Stamets, Alternate Examiner:

CASE 5173: (Continued from the February 13, 1974, Examiner Hearing)

Jim Sperling
John...
Application of Mobil Oil Corporation for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the W/2 of Section 3, Township 23 South, Range 27 East, South Carlsbad Field, Eddy County, New Mexico, to be dedicated to its Maude Rickman Com Well No. 1 located in Unit L of said Section 3. Also to be considered will be the cost of drilling and completing said well and the allocation of such costs, as well as actual operating costs and charges for supervision. Also to be considered is the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 5128: (Continued from the January 30, 1974, Examiner Hearing)

Mr. Nutter
K...
Application of Gulf Oil Corporation for a non-standard gas proration unit and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 160-acre non-standard gas proration unit comprising the NE/4 SW/4 and W/2 SE/4 of Section 28 and the NW/4 NE/4 of Section 33, both in Township 21 South, Range 37 East, Blinbry Gas Pool, Lea County, New Mexico, to be simultaneously dedicated to its J. N. Carson Wells Nos. 4 and 9 located in Units O and K, respectively, of Section 28.

Adm 21
...
CASE 5174: Application of Gulf Oil Corporation for three dual completions and for the amendment of Order No. R-2909, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete three wells for water injection into its Central Drinkard Unit Waterflood Project in Township 21 South, Range 37 East, Lea County, New Mexico, and for production as follows:

- H. T. Mattern Well No. 8, Unit I, Section 30: Blinbry Oil Pool;
- W. T. McCormack Well No. 13, Unit A, Section 32: Tubb Gas Pool;
- J. N. Carson Well No. 4, Unit O, Section 28: Blinbry Gas Pool;

Applicant further seeks the amendment of Order No. R-2909, which authorized said waterflood project, to provide for administrative approval of additional dual injection-production wells in said unit area.

(Case 5072 continued from Page 1)

authority to institute a pilot waterflood project by the injection of water into the Hospah sand of the Gallup formation in the open-hole interval from 734 feet to 744 feet in its Santa Fe Pacific Well No. 6-Y located 2013 feet from the North line and 2003 feet from the East line of Section 29, Township 16 North, Range 6 West, undesignated Gallup Pool, McKinley County, New Mexico.

CASE 5055: (Continued and Readvertised)

Application of Merrion & Bayless for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Gallup, Greenhorn, and Dakota oil and gas production within the wellbore of the Canada Mesa Well No. 3 located in Unit A of Section 14, Township 24 North, Range 6 West, Devils Fork Field, Rio Arriba County, New Mexico.

CASE 5073: Application of Belco Petroleum Corporation for a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 320-acre non-standard gas proration unit comprising the E/2 SW/4 and SE/4 of Section 30 and the N/2 NE/4 of Section 31, all in Township 20 South, Range 33 East, South Salt Lake Field, Lea County, New Mexico, to be dedicated to a well to be drilled either in the center of Unit O of said Section 30, or at an unorthodox location in the center of Unit P of said Section 30.

DOCKET: EXAMINER HEARING - WEDNESDAY - OCTOBER 3, 1973

9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM,
STATE LAND OFFICE BUILDING - SANTA FE, NEW MEXICO

The following cases will be heard before Richard L. Stamets, Examiner, or Daniel S. Nutter, Alternate Examiner:

- ALLOWABLE: (1) Consideration of the allowable production of gas for November, 1973, from seventeen prorated pools in Lea, Eddy, Roosevelt and Chaves Counties, New Mexico;
- (2) Consideration of the allowable production of gas from nine prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico, for November, 1973.

CASE 5044: (Continued from the August 9, 1973, Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Sycor Newton, Peru Milling Company, R. E. Deming and Aetna Life and Casualty Company and all other interested parties to appear and show cause why the State L 6350 Well No. 1 located in Unit M of Section 10, Township 23 South, Range 11 West, Luna County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 5069: Application of Sun Oil Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its Annie Christmas Well No. 1 located in Unit N of Section 1, Township 22 South, Range 37 East, Lea County, New Mexico, to produce gas from an undesignated Abo gas pool and oil from the Wantz-Granite Wash Pool through parallel strings of tubing.

CASE 5070: Application of Amoco Production Company for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Bubbling Spring Unit Area comprising 3078 acres, more or less, of Federal and Fee lands in Township 20 South, Range 26 East, Eddy County, New Mexico.

CASE 5071: Application of Texas West Oil & Gas Corporation for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its State "2" Well No. 2 located in Unit K of Section 2, Township 24 South, Range 34 East, Antelope Ridge Field Area, Lea County, New Mexico, to produce gas from the Atoka and Morrow formations through parallel strings of tubing.

CASE 5072: Application of Northern Minerals, Inc. for a waterflood project, McKinley County, New Mexico. Applicant, in the above-styled cause, seeks

dismissed

CASE 5059: Application of Cities Service Oil Company for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests from the surface of the ground down to and including the Devonian formation underlying the S/2 of Section 14, Township 20 South, Range 28 East, Eddy County, New Mexico, to be dedicated to a well to be drilled at a standard gas well location in Unit K of said Section 14. Also to be considered will be the cost of drilling and completing said well and the allocation of such costs, as well as actual operating costs and charges for supervision. Also to be considered is the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 5060: Application of Continental Oil Company for a unit agreement and for a waterflood expansion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the North El Mar Unit Area comprising 2361 acres, more or less, of State and Federal lands in Township 26 South, Ranges 32 and 33 East, Lea County, New Mexico. Applicant further seeks authority to expand its El Mar Payne waterflood project within said unit area previously authorized by Order No. R-3540.

CASE 5061: Application of Continental Oil Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Grayburg formation in its Elliott A-15 Well No. 1 located in Unit P of Section 15, Township 22 South, Range 37 East, Penrose-Skelly Pool, Lea County, New Mexico.

CASE 5062: Application of Continental Oil Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Grayburg-San Andres formation in its Mitchell Wells Nos. 2 and 6 located in Units P and J, respectively, of Section 5, Township 17 South, Range 32 East, Maljamar Pool, Lea County, New Mexico.

DOCKET: EXAMINER HEARING - WEDNESDAY - SEPTEMBER 5, 1973

9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM,
STATE LAND OFFICE BUILDING - SANTA FE, NEW MEXICO

The following cases will be heard before Elvis A. Utz, Examiner, or Richard L. Stamets, Alternate Examiner:

- ALLOWABLE: (1) Consideration of the allowable production of gas for October, 1973, from seventeen prorated pools in Lea, Eddy, Roosevelt and Chaves Counties, New Mexico;
- (2) Consideration of the allowable production of gas from nine prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico, for October, 1973.

*Assigned
cont to
Out 3 and re-advised to include Greenhorn form*

CASE 5055: Application of Merrion & Bayless for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Gallup and Dakota oil and gas production within the wellbore of the Canada Mesa Well No. 3 located in Unit A of Section 14, Township 24 North, Range 6 West, Basin-Dakota and Devils Fork-Gallup Pools, Rio Arriba County, New Mexico.

CASE 5056: Application of Depco, Inc. for an unorthodox location, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill a proposed gas well at an unorthodox location 990 feet from the North line and 1980 feet from the East line of Section 24, Township 15 South, Range 27 East, Buffalo Valley-Pennsylvanian Gas Pool, Chaves County, New Mexico.

CASE 5057: Application of Coquina Oil Corporation for an unorthodox location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill a proposed gas well at an unorthodox location 660 feet from the South and East lines of Section 12, Township 18 South, Range 25 East, West Atoka-Morrow Gas Pool, Eddy County, New Mexico, the S/2 of Section 12 to be dedicated to the well.

CASE 5058: Application of Corinne Grace for a dual completion and unorthodox location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of her Gradonoco Well No. 1 located in Section 2, Township 23 South, Range 26 East, Eddy County, New Mexico, in such a manner as to produce gas from an undesignated Wolfcamp pool and from the South Carlsbad-Morrow Gas Pool through tubing and the tubing-casing annulus, respectively, by a means of a cross-over assembly. Applicant further seeks approval of the unorthodox location of said well in the Wolfcamp formation at a point 2500 feet from the North line and 330 feet from the East line of said Section 2, which location has previously been approved for the Morrow formation.

LOCATION BASIN IN DAKOTA
WELL CANADA MESA NO. 3

COMPANY MERRION BAYLESS

COMPANY MERRION BAYLESS
WELL CANADA MESA NO. 3
FIELD BASIN DAKOTA
COUNTY RIO ARRIBA STATE NEW MEXICO
LOCATION 790'FNL, 790'FEL
Sec. 14 Twp. 24N Rge. 6W
Other Services:
BHC-GR

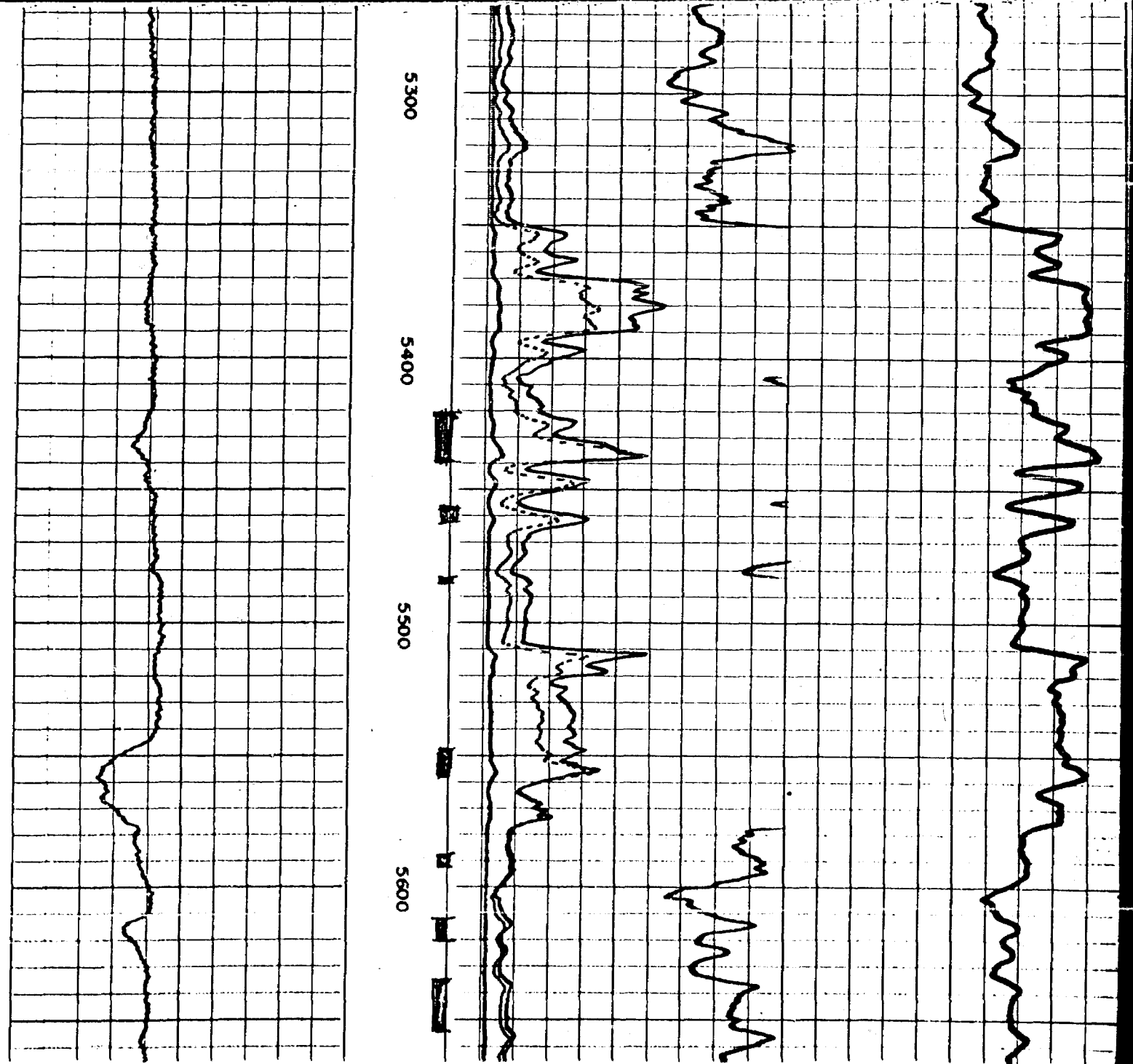
Elev.: K.B. 6447
D.F. ---
G.L. 6435

Measurement Datum: GL Elev. 6435
Measured From KB 12 Ft. Above Perm. Datum
Measured From KB

7-22-73
ONE
Driller 6725
Logger 6724
Log Interval 6718
Log Interval 200
Driller 200 @ 200 @
Logger 200 @ 200 @
Fluid in Hole: F.G.M. 7-7/8

Visc. 9.4 65
Fluid Loss 8.0 9.8 ml
of Sample FLOYLINE
Meas. Temp. 1.22 @ 76 °F
Meas. Temp. 0.91 @ 76 °F
Meas. Temp. --- @ --- °F
Rmt Rmc ---
DHT 0.60 @ 150 °F
Age Circ. 4 HRS.
Sec. Temp. 150 °F
Location 5619 FARM, °F
id By ELLIS °F
and By PAVI ECE °F

OLD HERE The well name, location and borehole reference data were furnished by the customer.



LOCATION BASIN DAKOTA
WELL CANADA MESA NO. 3

COMPANY MERRION BAYLESS

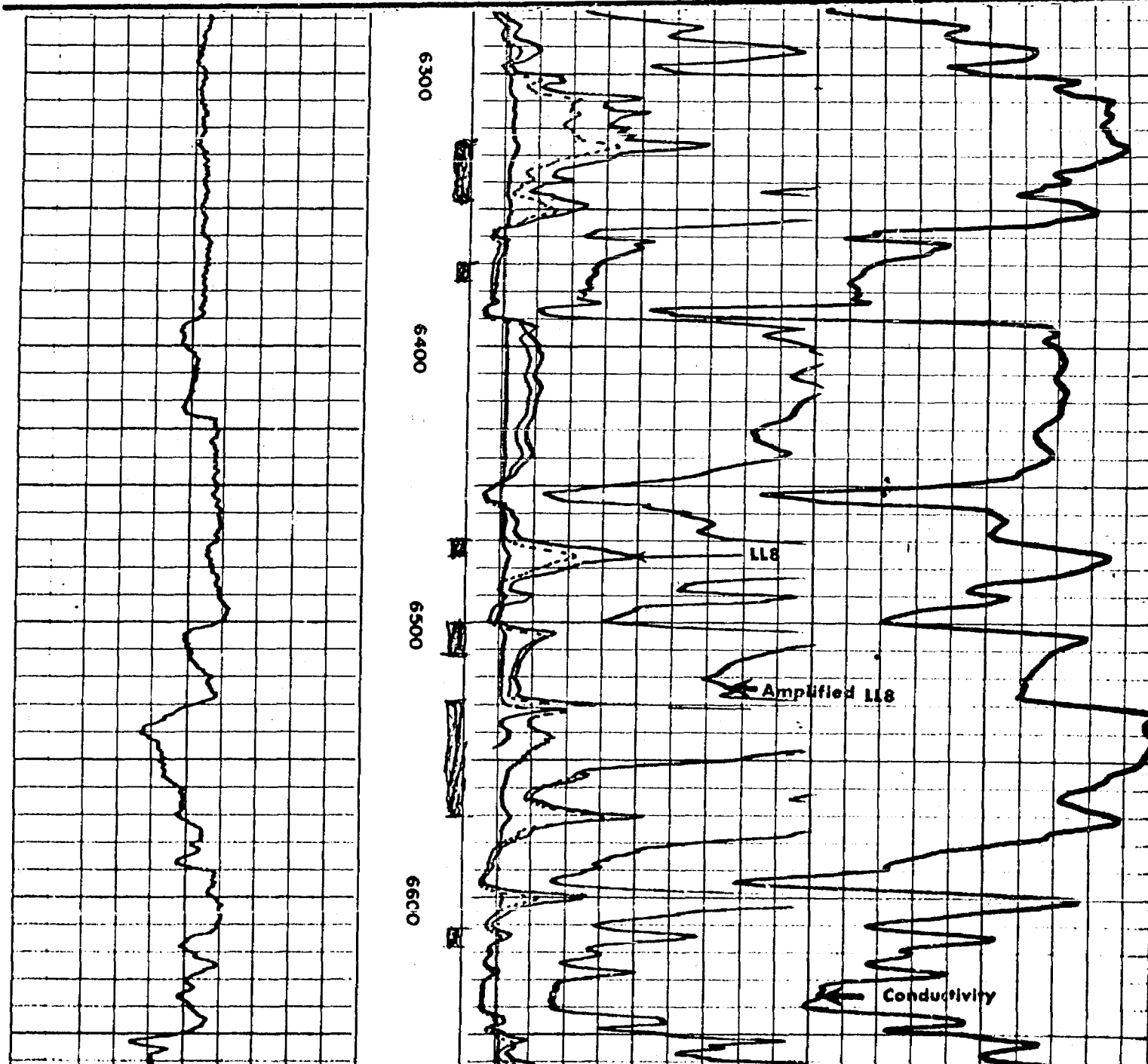
COMPANY MERRION BAYLESS
WELL CANADA MESA NO. 3
FIELD BASIN DAKOTA
COUNTY RIO ARRIBA STATE NEW MEXICO
LOCATION 7901 FNL, 7901 FEL
Sec. 14 Twp. 24N Rge. 6W

Other Services:
BHC-GR
see 5085

Parent Datum: GL Elev. 6435
Measured From KB 12 Ft. Above Perm. Datum
Log Measured From KB Elev.: K.B. 6447
D.F. ---
G.L. 6435

No.	7-22-73	ONE		
h-Driller	6725			
h-Logger	6724			
Log Interval	6718			
Log Interval	200	@	@	@
Log-Driller	200			
Log-Logger	7-7/8			
Size of Fluid in Hole	F.G.M.			
Visc.	9.4	65		
Fluid Loss	8.0	9.8	ml	ml
Type of Sample FLOWLINE				
Meas. Temp.	1.22	76	°F	°F
Meas. Temp.	0.91	76	°F	°F
Meas. Temp.			°F	°F
Meas. Temp.			°F	°F
Rec. Temp.	150		°F	°F
Since Circ.	4 HRS.			
Location	5619	FARM,		
Recorded By	ELLIS			
Checked By	BAYLESS			

FOLD HERE The well name, location and borehole reference data were furnished by the customer.



LOCATION: BASIN DAKOTA
WELL: CANADA MESA NO. 3

COMPANY: MERRION BAYLESS

WELL: CANADA MESA NO. 3

FIELD: BASIN DAKOTA

COUNTY: RIO ARRIBA STATE: NEW MEXICO

LOCATION: 7901 FNL, 7901 FEL

Other Services: BHC-GR

Sec. 14 Twp. 24N Rge. 6W

Log Date: 7-22-73

Driller: ONE

Logger: 6725

Log Interval: 6718

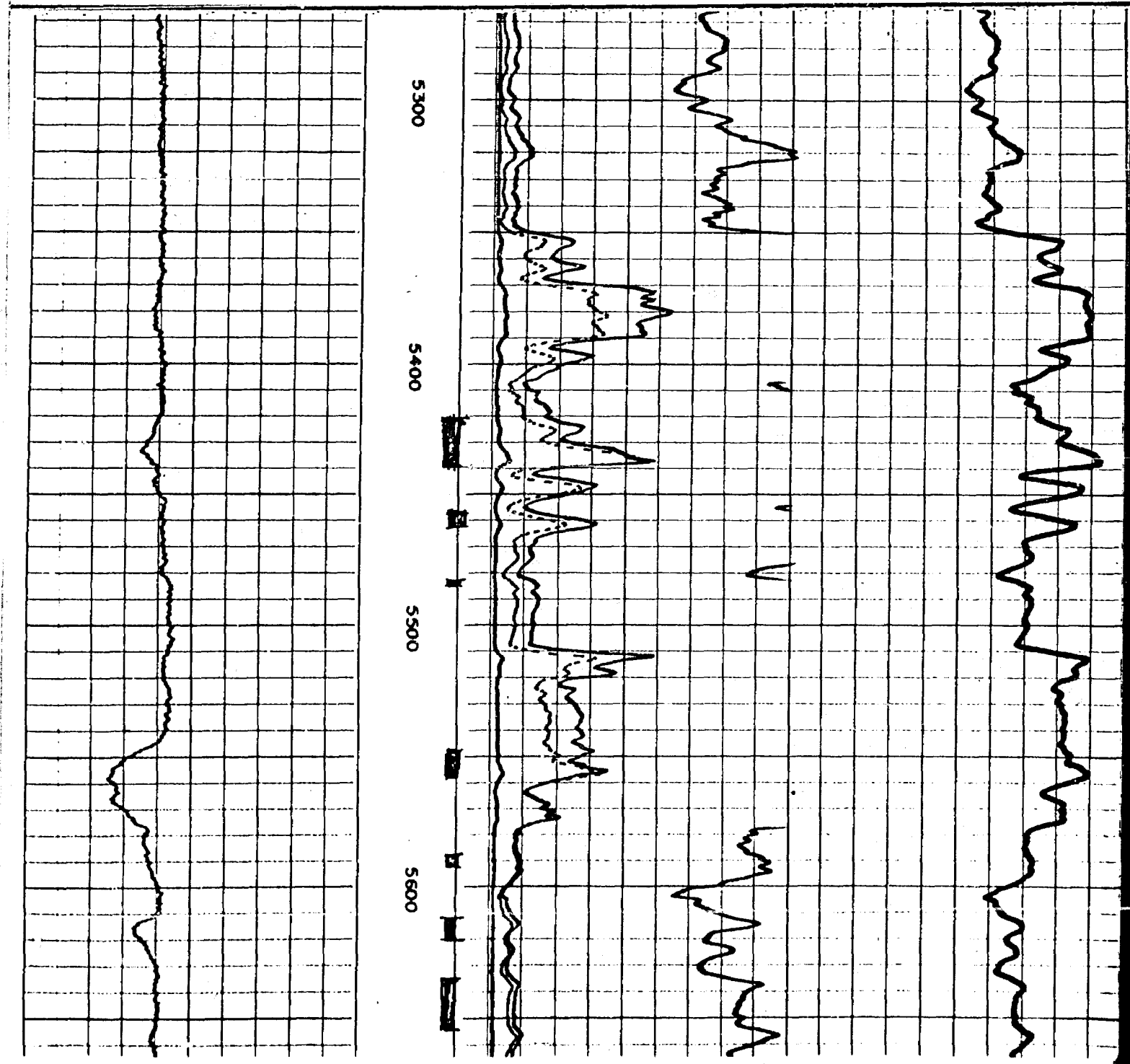
Driller: 200 @ 200 @

Logger: 200 @ 200 @

Fluid in Hole: F.G.M. 7-7/8

Visc.	9.4	65		
Fluid Loss	8.0	9.8	ml	ml
of Sample FLOWLINE				
Meas. Temp.	1.22	76	°F	°F
Meas. Temp.	0.91	76	°F	°F
Meas. Temp.			°F	°F
Rmt	M			
BHT	0.60	150	°F	°F
Rate Circ.	4	HRS.		
Log. Temp.	150		°F	°F
Location	5619	FARM,		
Log. By	ELLIS			
Log. Rev	RAVIFCS			

The well name, location and borehole reference data were furnished by the customer.



LOCATION BASIN DAKOTA
WELL CANADA MESA NO. 3

COMPANY MERRION BAYLESS

COMPANY MERRION BAYLESS

WELL CANADA MESA NO. 3

FIELD BASIN DAKOTA

COUNTY RIO ARRIBA STATE NEW MEXICO

LOCATION 790'FNL, 790'FEL

Other Services:
BHC-SR

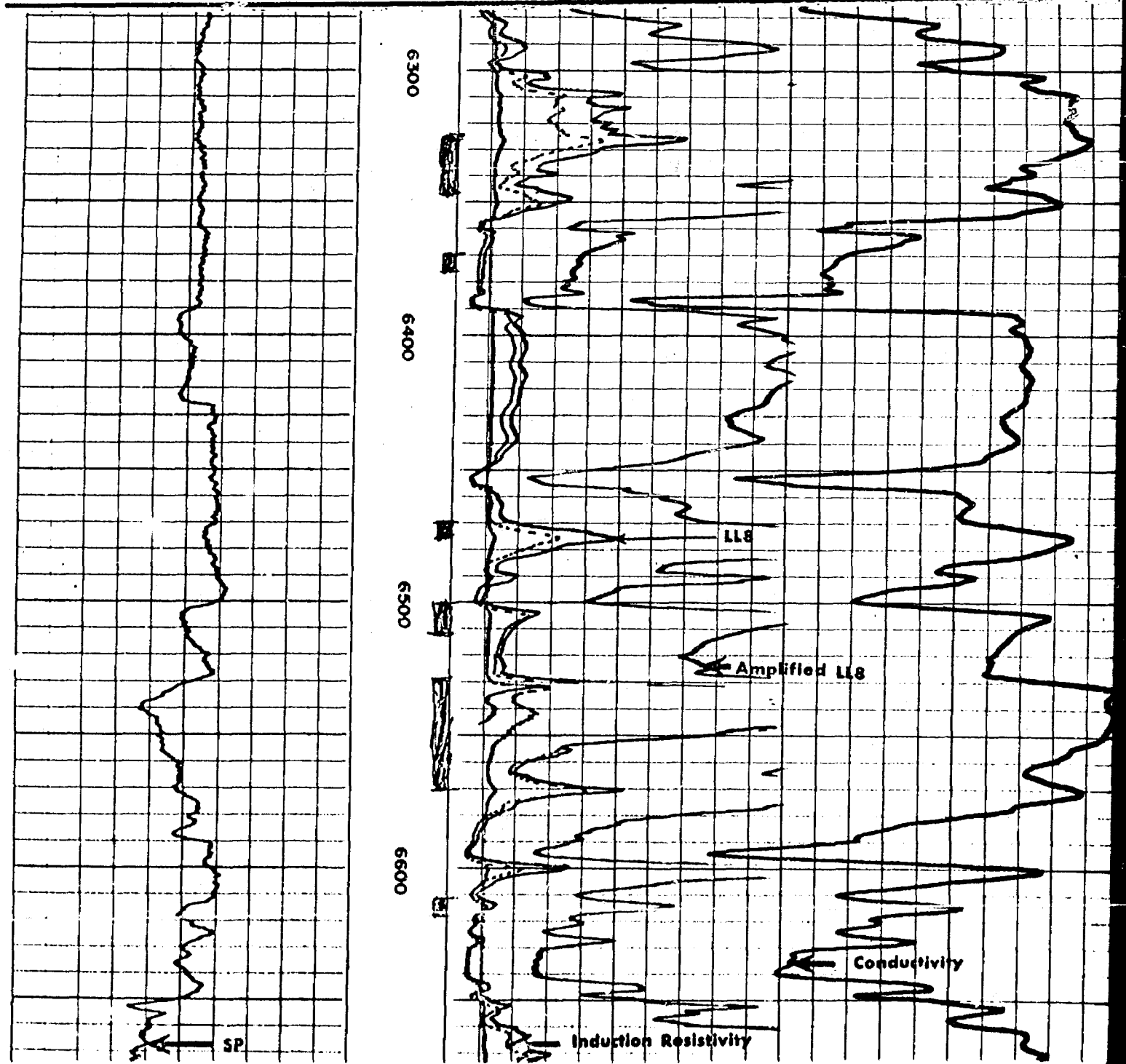
Sec. 14 Twp. 24N Rge. 6W

measured From: GL KB Elev. 6435
g Measured From: KB KB 12 Ft. Above Perm. Datum

Elev.: K.B. 6447
D.F. ---
G.L. 6435

Driller	ONE		
Logger	6725		
Log Interval	6724		
Log Interval	6718		
Driller	200	@ 200	@
Logger	200	@	@
Fluid in Hole	7-7/8		
Fluid in Hole	F. G. M.		
Visc.	9.4	65	
Fluid Loss	8.0	9.8 ml	
Flow Line			
Meas. Temp.	1.22	@ 76 °F	@
Meas. Temp.	0.91	@ 76 °F	@
Meas. Temp.		@ °F	@
Rate	M		
BHT	0.60	@ 150 °F	@
Time C/c	4 HRS.		
Sec. Temp.	150	@ °F	@
Location	5619 FARM.		
Location	ELLIS		
Recorded By	BAYLESS		

FOLD HERE The well name, location and borehole reference data were furnished by the customer.



LOCATION **BASIN DAKOTA**
WELL **CANADA MESA NO. 3**

COMPANY **MERRION BAYLESS**

COMPANY **MERRION BAYLESS**

WELL **CANADA MESA NO. 3**

FIELD **BASIN DAKOTA**

COUNTY **RIO ARRIBA** STATE **NEW MEXICO**

LOCATION **7901 FNL, 7901 FEL**

Sec. **14** Twp. **24N** Rge. **6W**

Other Services: **BHC-GR**

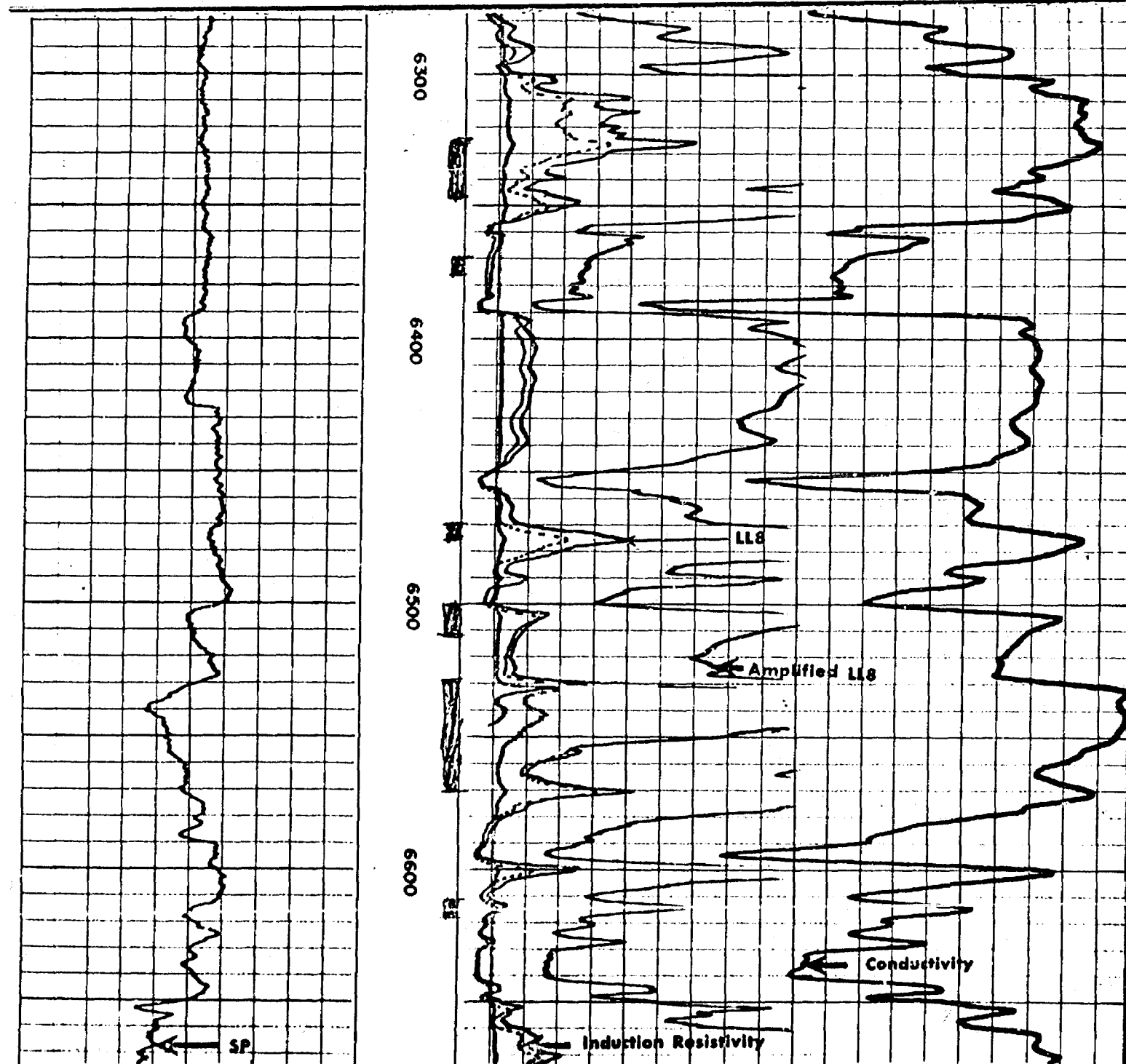
Instrument Datum: **GL** Elev.: **6435**

Measured From **KB** 12 Ft. Above Perm. Datum

Measured From **KB** Elev.: **6447**
D.F. **---**
G.L. **6435**

7-22-73	ONE				
Driller	6725				
Logger	6724				
Log Interval	6718				
Log Interval	200	@	200	@	@
Driller	200				
Logger	7-7/8				
Fluid in Hole	F.G.M.				
Visc.	9.4	65			
Fluid Loss	8.0	9.8 ml			
Flow Line			ml	ml	ml
Meas. Temp.	1.22	@ 76 °F	@	@	@
Meas. Temp.	0.91	@ 76 °F	@	@	@
Meas. Temp.	---	@ --- °F	@	@	@
Meas. Temp.	---	@ --- °F	@	@	@
Meas. Temp.	---	@ --- °F	@	@	@
BHT	0.60	@ 150 °F	@	@	@
Ince Circ.	4 HRS.				
Sec. Temp.	150	°F	°F	°F	°F
Location	5619 FARM,				
ed By	ELLIS				
sed By	BAYLESS				

FOLD HERE The well name, location and borehole reference data were furnished by the customer.



LOCATION WELL BASIN DAKOTA CANADA MESA NO. 3

COMPANY MERRTON BAYLESS

COMPANY MERRION BAYLESS

WELL CANADA MESA NO. 3

FIELD BASIN DAKOTA

COUNTY RIO ARRIBA STATE NEW MEXICO

LOCATION 7901FNL, 7901FEL

Other Services: BHC-GR

Sec. 14 Twp. 24N Rge. 6W

Measurement Datum: GL Elev. 6435

Measured From KB 12 Ft. Above Perm. Datum

Measured From KB

Elev.: KB 6447
D.F. 6435
GL 6435

7-22-73

ONE

Driller 6725

Logger 6724

Log Interval 6718

3-Driller 200 @ 200 @

3-Logger 200 @ 200 @

Time 7-7/8

Fluid in Hole F.G.M.

Visc. 9.4 65

Fluid Loss 8.0 9.8 ml

Flow Line

Meas. temp. 1.22 @ 76 °F @ °F @ °F

Meas. temp. 0.91 @ 76 °F @ °F @ °F

Meas. temp. --- @ --- °F @ °F @ °F

Meas. temp. --- @ --- °F @ °F @ °F

BHT 0.60 @ 150 °F @ °F @ °F

Since Circ. 4 HRS.

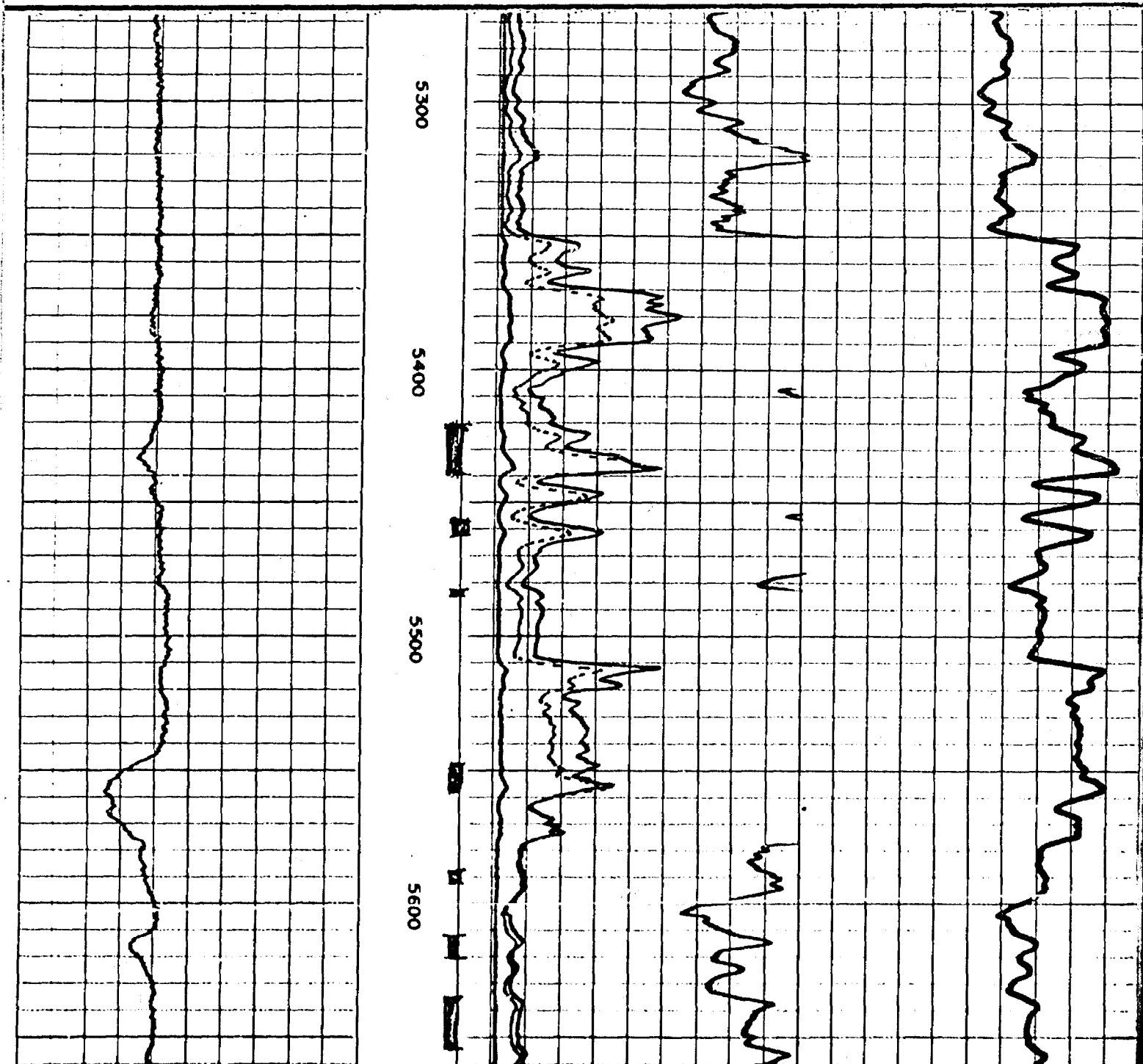
Rec. Temp. 150 °F

Location 5619 FARM,

Field By ELLIS

Recorded By RAYLESS

OLD HERE The well name, location and borehole reference data were furnished by the customer.



LOCATION BASIN DAKOTA
WELL CANADA MESA NO. 3

COMPANY MERRION BAYLESS

WELL CANADA MESA NO. 3

FIELD BASIN DAKOTA

COUNTY RIO ARRIBA STATE NEW MEXICO

LOCATION 790 FNL, 790 FEL

Other Services: BHC-GR

Sec. 14 Twp. 24N Rge. 6W

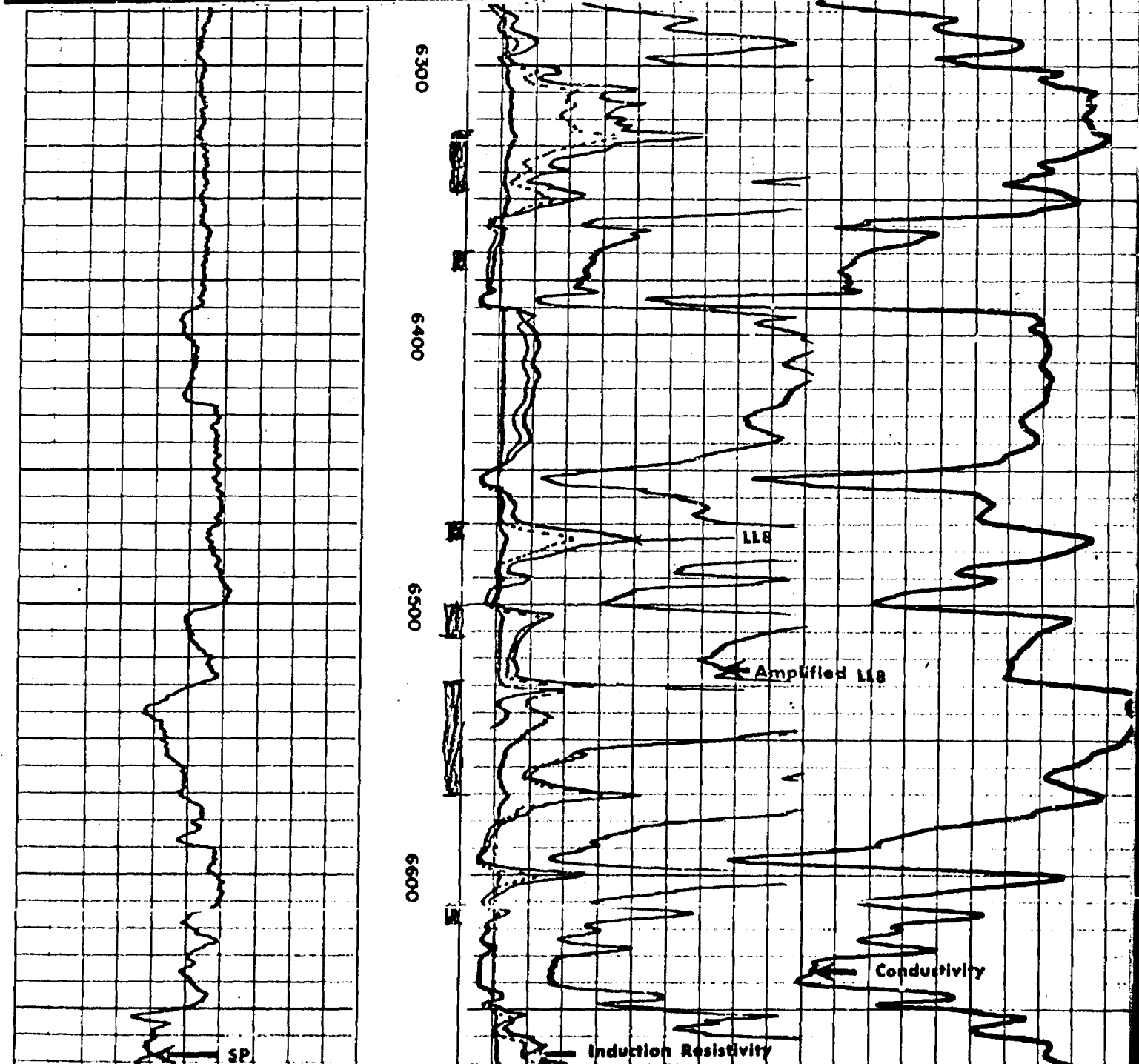
Agent Datum: GL Elev. 6435

Measured From KB 12 Ft. Above Perm. Datum Elev. KB. 6447

Measured From KB D.F. --- G.L. 6435

No.	7-22-73			
h-Driller	ONE			
h-Logger	6725			
h-Logger	6724			
Log Interval	6718			
Log Interval	200	@	200	@
Log-Driller	200	@	200	@
Log-Logger	7-7/8			
Size	7-7/8			
Fluid in Hole	F.G.M.			
Visc.	9.4	65		
Fluid Loss	8.0	9.8 ml		
Sample	FLOWLINE			
Meas. Temp.	1.22	76 °F	@	76 °F
Meas. Temp.	0.91	76 °F	@	76 °F
Meas. Temp.	---	---	@	---
Meas. Temp.	---	---	@	---
Meas. Temp.	---	---	@	---
Since Circ.	4 HRS.			
Rec. Temp.	150	°F		°F
Location	5619 FARM,			
Recorded By	ELLIS			
Checked By	BAYLESS			

FOLD HERE The well name, location and borehole reference data were furnished by the customer.



LOCATION WELL BASIN DAKOTA
CANADA MESA NO. 3

COMPANY MERRTON BAYLESS

COMPANY MERRION BAYLESS

WELL CANADA MESA NO. 3

FIELD BASIN DAKOTA

COUNTY RIO ARRIBA STATE NEW MEXICO

LOCATION 7901 FNL, 7901 FEL

Sec. 14 Twp. 24N Rge. 6W

Other Services:
BHC-GR

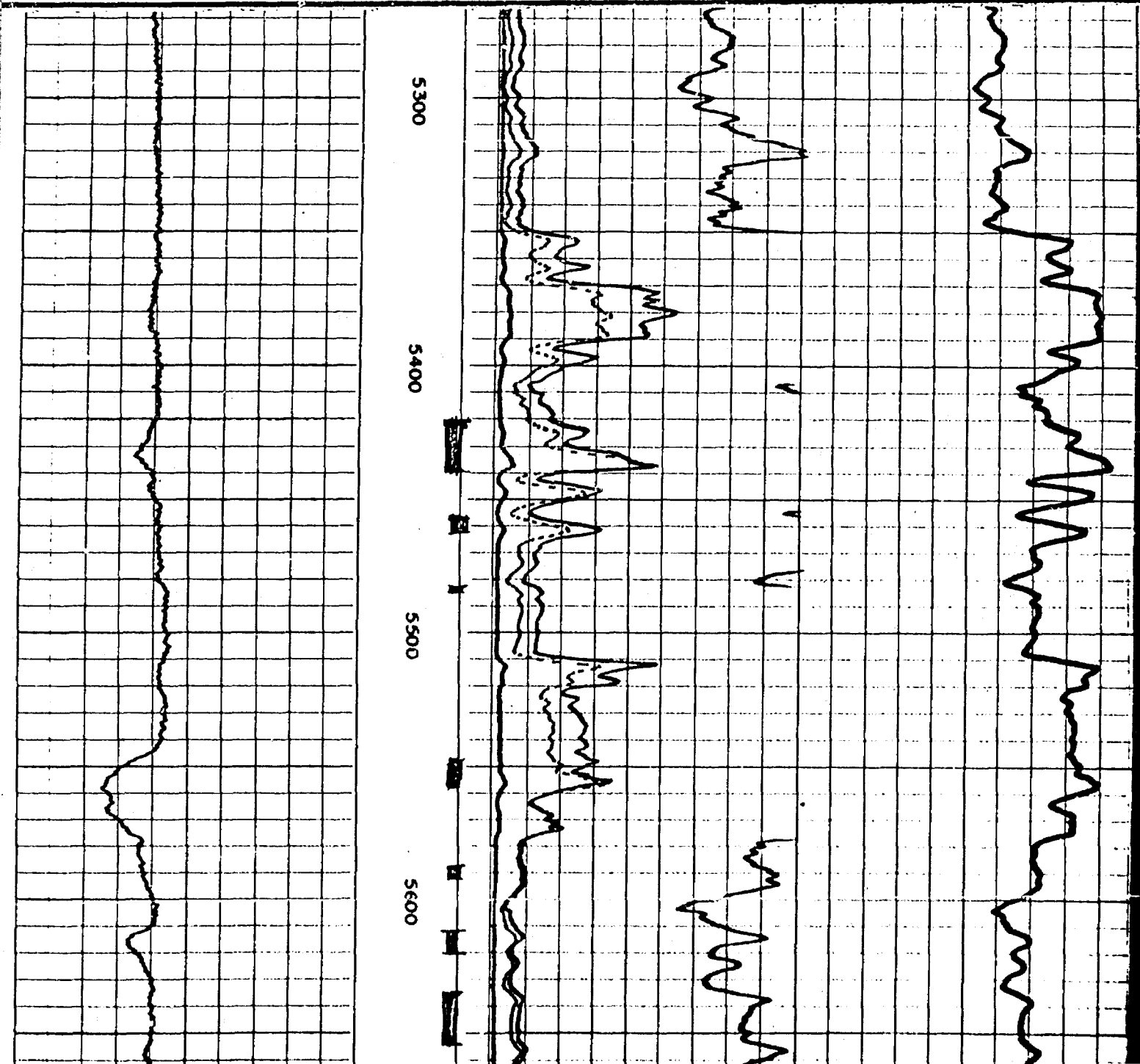
measured From KB Elev. 6435

measured From KB 12. Ft. Above Perm. Datum

Elev.: K.B. 6447
D.F. ---
G.L. 6435

7-22-73	ONE								
Driller	6725								
Logger	6724								
Log Interval	6718								
Log Interval	200	@	200	@					
Driller	200	@	200	@					
Logger	200	@	200	@					
Fluid in Hole	7-7/8								
	F.G.M.								
Visc.	9.4	65							
Fluid Loss	8.0	9.8	ml						
Flowline			ml						
Meas. Temp.	1.22	76	°F	@					
Meas. Temp.	0.91	76	°F	@					
Meas. Temp.			°F	@					
Meas. Temp.			°F	@					
RHT	0.60	150	°F	@					
Since Circ.	4	HRS.		@					
Rec. Temp.	150		°F						
Location	5619	FARM.							
Location	ELLIS								
Recorded By	BAVIESS								

The well name, location and borehole reference data were furnished by the customer.



LOCATION BASIN DAKOTA
 WELL CANADA MESA NO. 3

COMPANY MERRION BAYLESS

COMPANY MERRION BAYLESS

WELL CANADA MESA NO. 3

FIELD BASIN DAKOTA

COUNTY RIO ARRIBA STATE NEW MEXICO

LOCATION 7901 FNL, 7901 FEL

Sec. 14 Twp. 24N Rge. 6W

Other Services:
 BHC-GR

Measurement Datum: GL Elev. 6435

Measured From KB, 12 F. Above Perm. Datum

Measured From KB Elev.: K.B. 6447
 D.F. ---
 G.L. 6435

Driller	7-22-73	ONE
Logger	6725	
Log Interval	6724	
Log Interval	200	
g-Driller	200	@ 200 @ @ @
g-Logger	200	@ @ @ @ @
Fluid in Hole	7-7/8	F.G.M.
Visc.	9.4	65
Fluid Loss	8.0	9.8 ml
Sample	FLUYLE	ml
Meas. Temp.	1.22	76 °F
Meas. Temp.	0.91	76 °F
Meas. Temp.		°F
Meas. Temp.		°F
BHT	0.60	150 °F
Slide Circ.	4 HRS.	
Rec. Temp.	150	°F
Location	5619 FARM,	°F
By	ELLIS	°F
By	BAYLESS	°F

FOLD HERE The well name, location and borehole reference data were furnished by the customer.

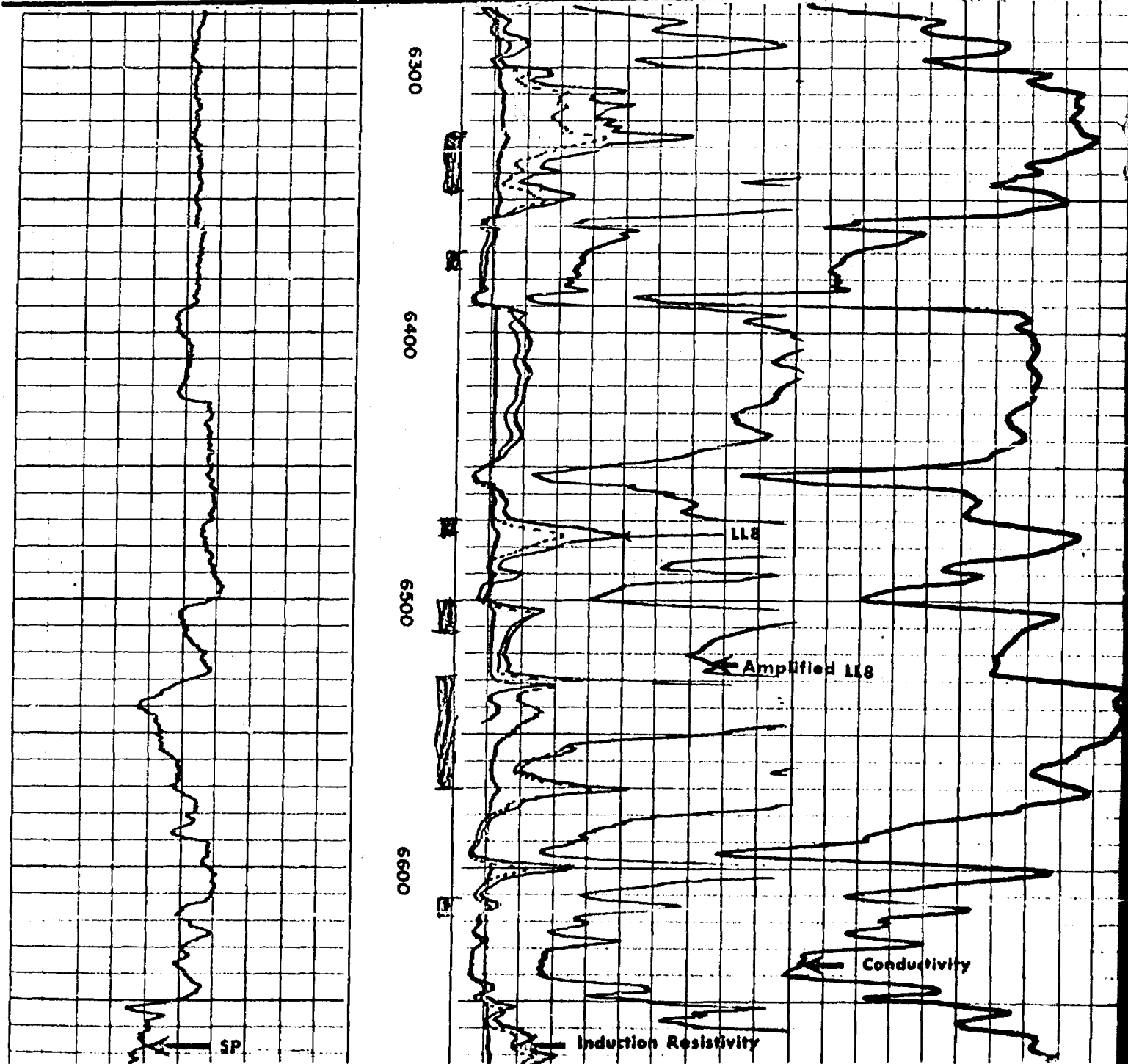
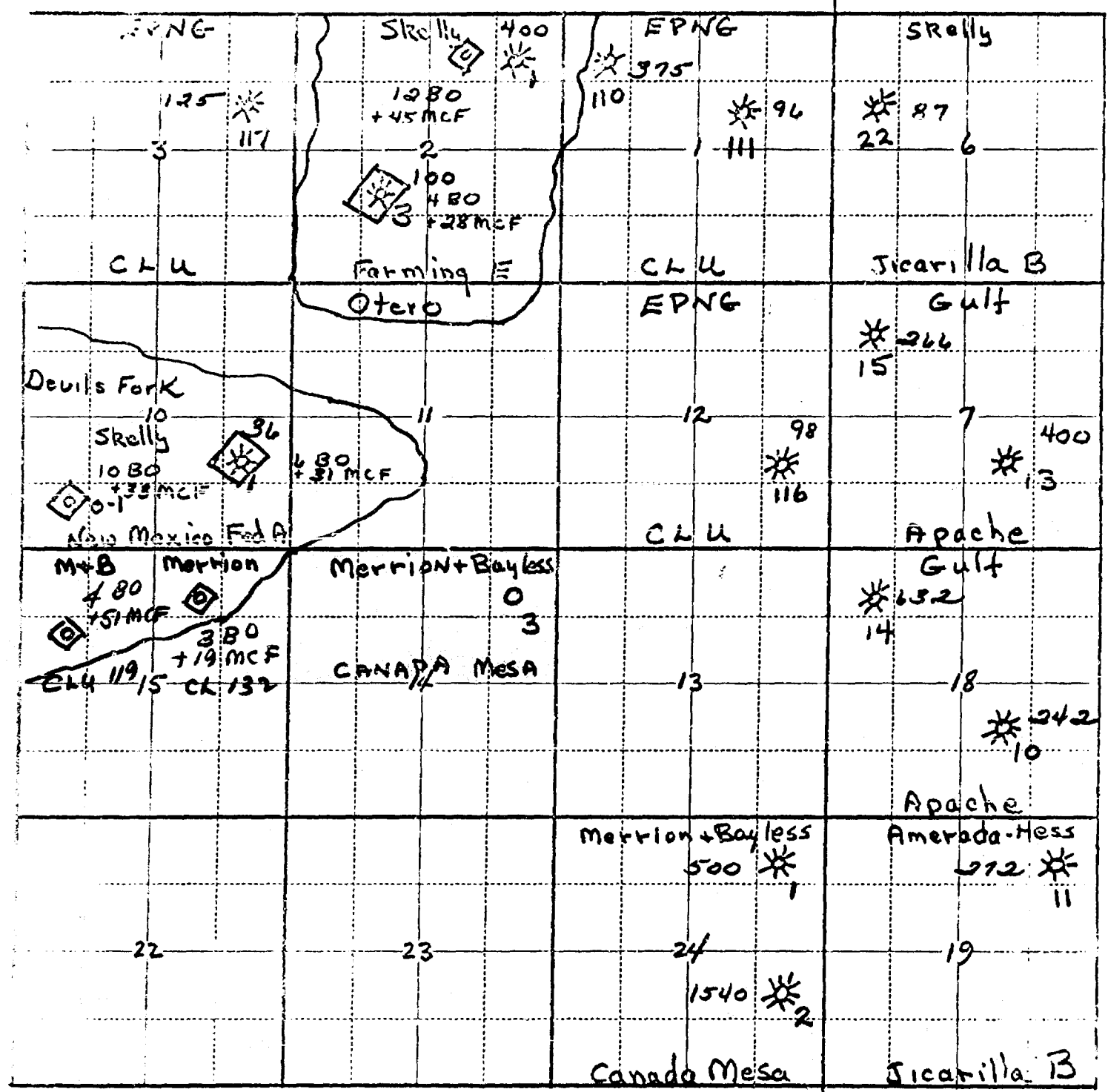


Exhibit No. 1
 Application to Comingle
 Merrion + Bayless, Canada Mesa # 3

Township, 24N Range, 5+6W County, Rio Arriba State, New Mexico



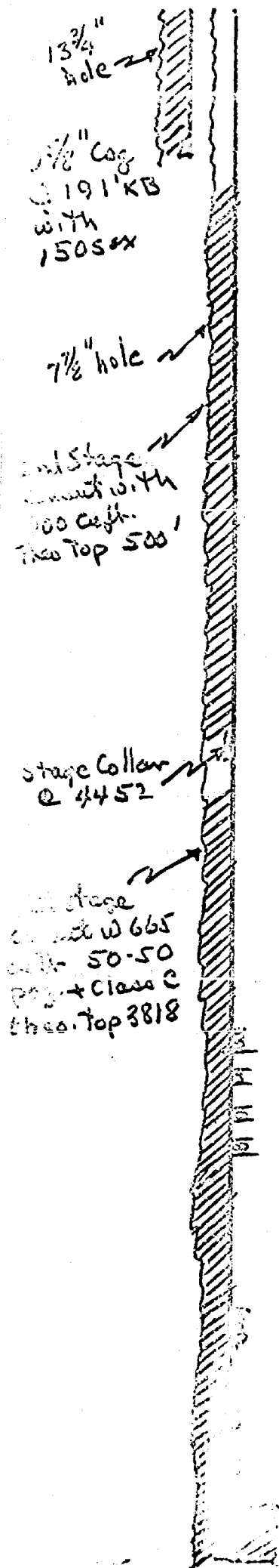
Dakota Completion R-6W June '73 Dakota Gas Rate mcf/da. R-5W
 Gallup Completion June '73 Gallup Daily Oil + Gas Rate
 Dakota-Gallup Dual

BEFORE EXAMINER STAMETS
 OIL COMMISSION REGISTRATION
 Applicants' Merrion + Bayless
 CASE NO. 5055
 Submitted by Merrion + Bayless
 Hearing Date Oct. 3, 1973

Application to Comingle

Merrion + Bayless, Canada Mesa #3

DEPARTMENT OF REVENUE
 OIL AND GAS COMMISSION
 Applicants Merrion + Bayless
 CASE NO. 5055
 Submitted by Merrion + Bayless
 Hearing Date OCT. 3, 1973



} Proposed Gallup Perts. 5424-38
 5458-62
 5548-56
 5614-22

} Proposed Greenhorn Perts. 6322-6346

} Proposed Dakota Perts. 6500-12
 6520-70

Exhibit No. 4

Application to Comingle
Merrion + Bayless Canada Mesa #3

Estimate of Pressures
To Be Encountered.

Applicant's No. 4
No. 5055
Submitted by Merrion + Bayless
Hearing Date Oct. 3, 1973

Dakota Formation Pressure

Based on initial shut in casing pressure
at Merrion + Bayless Canada Mesa #1.

SICP = 2315 BHP estimated

2707 psi

Greenhorn Formation Pressure

Based on DST shut in formation
pressure in Continental Oil Co., Haynes 9-1
NW-SW, Sec 9, T-24N, R-5W

2552 psi

Gallup Formation Pressure

Based on DST's in following wells:

Redfern + Herd, Largo Spur #1, NW SE, Sec 18, T-24N, R-6W
1955 psi.

Stelly, Jicarilla B-10, SE SE, Sec 32, T-25N, R-5W
2120 psi

Stelly, Jicarilla C-16, NW NW, Sec 34, T-25N, R-5W
2090 psi

Approximate mean pressure

2100 psi

Dakota Gas Sales Line Pressure

June 1973

270 psi

Herrion & Bayless
Canada Mesa #3
790' FNL and 790' FEL
Section 24, Township 24 North, Range 6 West
Rio Arriba County, New Mexico

Exhibit 1

COMPLETION DATA

Production Casings: 4 1/2", 9.5# and 10.5# J-55 casing. Set at 6737 cemented bottom stage with 665 cu ft 50-50 class C and Diamix A. Stage collar at 4452. Cemented 2nd stage with 900 cu ft Hys "C" 400.

Dakota: Perforated 6500-6512 w/20 holes.
6530-6570 w/20 holes.
Sand-oil fracked with 43,000 gallons condensate and 30,000# 20-40 sand and 10,000# 10-20 sand.

Greenhorn: Set bridge plug at 6400' EB. Perforated 6320-6326. Attempted to sand-oil frack but sanded out when sand hit formation.

Gallup: Perforated 5422-38 20 holes.
5458-62 10 holes.
5548-56 20 holes.
Sand-oil fracked with 61,698 gallons crude oil and 58,000# 20-40 sand. Injection rate 27 BPM at 3100 psi for first 30,000 gallons. Thenk dropped 23 balls and finished treatment at 12 BPM at 3300 psi.

Drilled out bridge plug and cleaned out to bottom. Ran 2" tubing. Initial gas rate estimated at 1750 MCF/day.

Put on production January 8, 1974.

PRODUCTION HISTORY

	<u>MCF/day</u>	<u>BOPD</u>	<u>BWPD</u>	<u>Load Oil To Recover</u>
1-10-74	800	90	60	2307
1-17-74	500	55	50	1824
1-24-74	400	50	50	1460
2- 1-74	302	40	40	1100
2-21-74	200	25	15	450

MERRION & BAYLESS

Exhibit 2

Canada Mesa #3
Production History

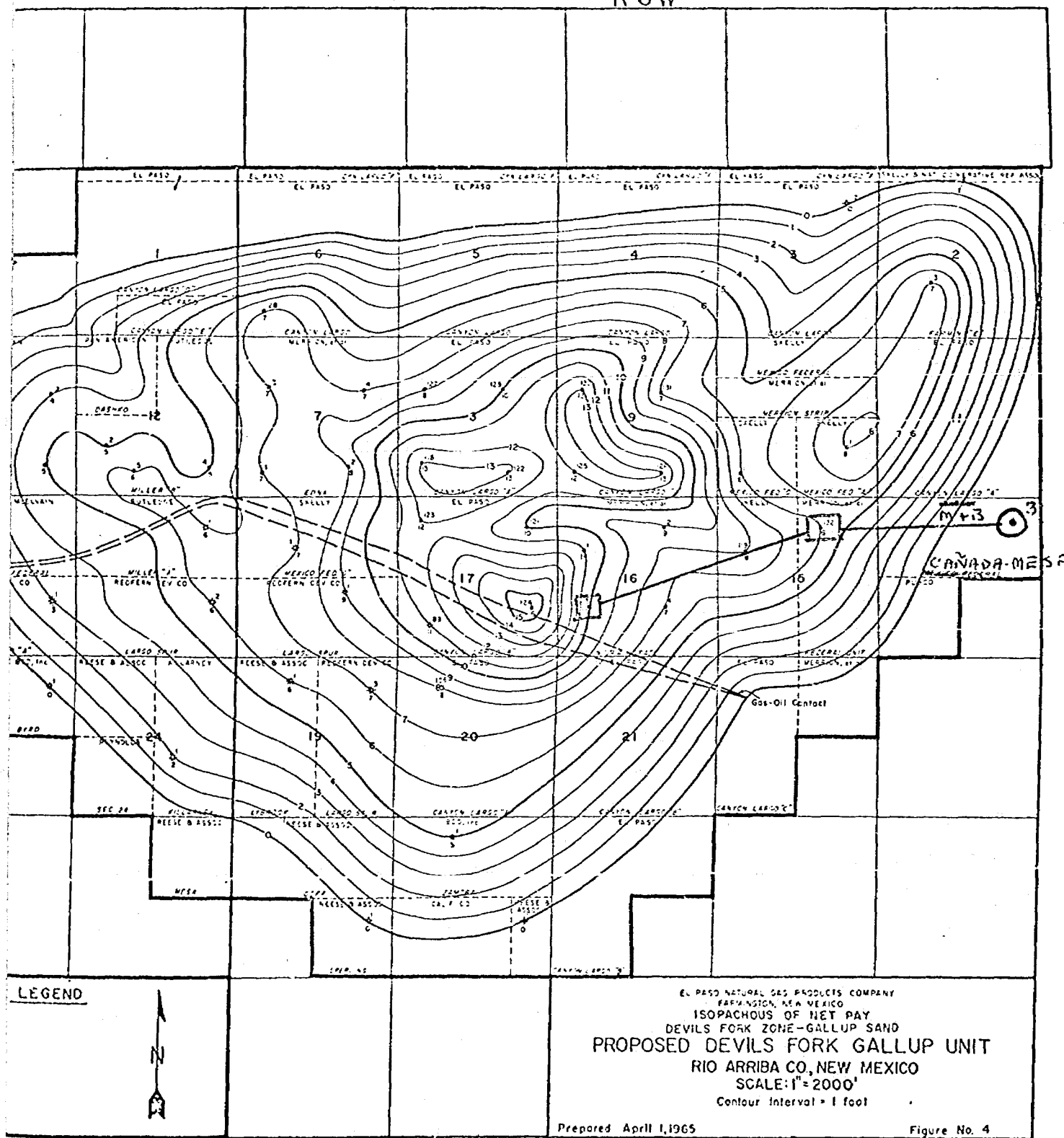
First Production
2:00 PM January 8, 1974

DATE	MCF/da	BOPD	BWPD	TP/CP	BLO TO RECOVER	OIL GRAVITY
1- 9-74	1000	150	50	700/1080	2314	
1-10-74	800	90	60	700/925	2224	
1-12-74	700	100	60	650/900	2075	47.4
1-15-74	500	78	50	325/650	1842	45.5
1-17-74	500	55	50	275/600	1730	
1-19-74	576	46	45	270/590	1610	42.2
1-21-74	400	50	50	250/570	1477	
1-25-74	345	43	40	235/550	1313	43.2
1-28-74	325	45	40	220/550	1131	43.3
2- 1-74	305	53	50	210/575	971	44.2
2- 4-74	268	36	25	200/590	860	
2- 6-74	244	37	25	180/600	786	
2- 8-74	244	33	20	200/600	719	44.1
2-11-74	214	36	20	175/575	612	
2-13-74	168	33	15	180/600	545	
2-15-74	190	30	15	200/600	465	
2-18-74	190	26	15	200/600	388	
2-20-74	190	24	15	200/600	341	
2-21-74	190	22	15	200/600	319	
2-23-74	Shut in for pipeline tie in				319	45.7
2-25-74	180	26	15	200/600	242	
2-26-74	Shut in to hot oil tubing				242	42.2

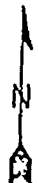
CASE # 5055

Exhibit # 3

R-6-W



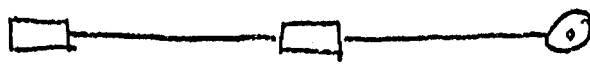
LEGEND



EL PASO NATURAL GAS PRODUCTS COMPANY
 FARMINGTON, NEW MEXICO
 ISOPACHOUS OF NET PAY
 DEVILS FORK ZONE-GALLUP SAND
 PROPOSED DEVILS FORK GALLUP UNIT
 RIO ARRIBA CO., NEW MEXICO
 SCALE: 1" = 2000'
 Contour Interval = 1 foot

Prepared April 1, 1965

Figure No. 4



Log Cross-section

BERNARD & BAYLESS

Exhibit 5

Canada Mesa #3
Application to Cormingle
Case #5055

Proposal For Allocation Of Cormingled Production

Allocate all gas produced to Basin Dakota and all oil produced to Undesignated Gallup - Greenhorn Field.

Proposal For Testing

Request exemption from Basin Dakota deliverability testing because of marginal gas production.

Request exemption from inclusion in Devils Fork Field because of tight sand, great distance from other producers, marginal oil production and expense of running separate zone BHP and GOR tests.

Gas and oil are both being sold; therefore, monthly C-115 would represent cormingled monthly GOR test.

Exhibit 6

February 22, 1974

New Mexico Oil Conservation Commission
P.O. Box 2088
Santa Fe, New Mexico 87501

ATTENTION: Mr. A. L. Porter

Re: Application of Merrion and Bayless
for Permanent Commingling Order on
Their Canada Mesa #3 Well
Case 5055

Gentlemen:

We understand that in the above described application operator proposes to continue commingled production while allocating all oil to the Gallup horizon and all gas to the Basin Dakota producing interval.

Since this well is within one mile of the present limits of the Devils Fork Gallup Field and would normally be included in that field as to Gallup production, we as a Devils Fork Field operator will be effected.

This is to waive any objection to the request of Merrion and Bayless that the Canada Mesa #3 well be excepted from the Devils Fork Field Rules and that oil production from said well be considered to be from undesignated Gallup formation.

Yours very truly,



R. M. Operating

Exhibit 7

February 22, 1974

New Mexico Oil Conservation Commission
P.O. Box 2088
Santa Fe, New Mexico 87501

ATTENTION: Mr. A. L. Porter

Re: Application of Merrion and Bayless
for Permanent Commingling Order on
Their Canada Mesa #3 Well
Case 5055

Gentlemen:

We understand that in the above described application operator proposes to continue commingled production while allocating all oil to the Gallup horizon and all gas to the Basin Dakota producing interval.

Since this well is within one mile of the present limits of the Devils Fork Gallup Field and would normally be included in that field as to Gallup production, we as a Devils Fork Field operator will be effected.

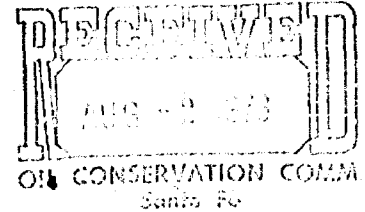
This is to waive any objection to the request of Merrion and Bayless that the Canada Mesa #3 well be excepted from the Devils Fork Field Rules and that oil production from said well be considered to be from undesignated Gallup formation.

Yours very truly,

Ray W. Jones *Pres. M.C.*
Flag Redfern Oil Company

2-26-74

J. GREGORY MERRION
PETROLEUM ENGINEER
P. O. BOX 507
FARMINGTON, NEW MEXICO 87401



*Hearing
9/5
Case 5055*

August 1, 1973

New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

Attn: Mr. Dan Nutter
Chief Engineer

Re: Request for Administrative Approval
to Comingle Gallup Dakota Zones
Merrion & Bayless Canada Mesa #3
Sec. 14, T-24N, R-6W
Rio Arriba County, New Mexico

Gentlemen:

We have recently drilled and set 4 1/2" casing on our Canada Mesa #3 well located 790' from N and EL, Section 14, T-24N, R-6W, Rio Arriba County, New Mexico. A mud log indicated shows of oil or gas in many small intervals throughout the Gallup-Dakota interval.

It is our desire to complete the well as a comingled producer from many of the intervals marked on the attached Xerox copies of the log. Based upon experience in the area we hope to get 500 MCF/day plus 5 bbls. condensate/day from the Dakota intervals below 6450 and 30 BOPD plus 50 MCF/day from the balance of the intervals with shows. From zero to ten barrels of water/day would be expected from the Dakota and no water production from the other intervals. Enclosed are five Xerox copies of the Electric log over the intervals of interest.

Yours very truly,
MERRION & BAYLESS

Gregory Merrion

J. Gregory Merrion

JGM:cbr

Encl: Five Xerox copies of Electric log

*within
one mile
of Devils Fork*

DOCKET MAILED

Date 9-21-73

DOCKET MAILED

Date 9-24-73

J. GREGORY MERRION
PETROLEUM ENGINEER
P. O. BOX 807
FARMINGTON, NEW MEXICO 87407

February 1, 1974

State of New Mexico
Oil Conservation Commission
Box 2088
Santa Fe, New Mexico 87501

Re: Order No. R-4651
Canada Mesa #3 Commingling

*Reopen
Case 5055*

Gentlemen:

Pursuant to subject order, please be advised that first commingled production occurred from the Canada Mesa #3 on January 8, 1974.

Accordingly, in compliance with the order, please schedule a hearing on or about ¹³March 6, 1974 to hear evidence as to the proper method of completion of the well and allocation of production to the individual zones.

Yours very truly,

MERRION & BAYLESS

J. Gregory Merrion

J. Gregory Merrion

JGM/su

DOCKET MARKED

Date 2-15-74

DRAFT

RLS/dr

(TW)
BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE NO. 5055

Order No. R- 4651

APPLICATION OF MERRION & BAYLESS

FOR DOWNHOLE COMMINGLING, RIO
ARRIBA COUNTY, NEW MEXICO.

[Handwritten signatures]
ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on October 3, 1973,
at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this November day of October, 1973, the Commission,
a quorum being present, having considered the testimony, the record,
and the recommendations of the Examiner, and being fully advised
in the premises,

FINDS:

(1) That due public notice having been given as required by
law, the Commission has jurisdiction of this cause and the subject
matter thereof.

(2) That the applicant is the owner and operator of the
Cañada Mesa Well No. 3, located in Unit A of Section 14, Township
24 North, Range 6 West, NMPM, Rio Arriba County, New Mexico.

(3) That said well has discovered gas production in the Basin-
Dakota Pool, ~~and~~ oil production in the ^{Gallup formation adjacent to the} ~~undesignated~~ Devils Fork-
Gallup Oil Pool, and ^{oil production from an} ~~an~~ undesignated Greenhorn Oil Pool.

(4) That based on tests during drilling, all three ~~production~~
zones appear to be capable of only low marginal production which
will not justify the completion of the well as single oil well or
a multiply completed oil and gas well.

(5) That the applicant seeks to temporarily complete and
produce said well with the Gallup, Greenhorn and Dakota formations
commingled in the same wellbore and to evaluate such production
to determine the most proper and efficient methods of ultimate
completion, production, and determination of production from the
three individual zones.

(6) That approval of the requested temporary commingling
may result in the recovery of additional oil and gas from each
of the commingled zones in the subject well, thereby preventing
waste and will not violate correlative rights.

(7) That the reservoir characteristics of each of the zones
in the subject well are such that underground waste would not
be caused by the proposed temporary commingling in the wellbore.

(8) That the mechanics of the proposed temporary completion
are feasible and in accord with good conservation practices.

(9) That applicant should request a hearing within 60 days
^{after} ~~of~~ the date of first commingled production wherein he will
present evidence as to the proper manner of completion and ^{or} method
of determining production from the individual commingled zones.

(10) That, in any event, the ^{commingling} authority granted in this order
should terminate and be of no further effect after 90 days ~~after~~ ^{from}
~~the~~ ^{the date of initial} commingled production from ^{said} ~~the~~ well.

-3-
Case No. 5055
Order No. R-

(11) That to afford the Commission the opportunity to assess the potential for waste and to expeditiously order appropriate remedial action, the operator should notify the Aztec district office of the Commission any time the subject well is shut in.

IT IS THEREFORE ORDERED:

(1) That the applicant, Merrion & Bayless, is hereby authorized to temporarily complete its Canada Mesa Well No. 3, located in Unit A of Section 14, Township 24 North, Range 6 West, NMPM, Rio Arriba County, New Mexico, in such a manner as to produce gas from the Basin-Dakota Pool ^{Gallup formation adjacent to the} and oil from the ~~undesignated~~ ^{Devils Fork Gallup Pool and ~~undesignated~~ ^{undesignated}} ~~undesignated~~ Greenhorn Pool, commingled in the wellbore, through a single string of tubing.

(2) That the operator of said well shall notify the Commission of the date of first commingled production and within 60 days, thereafter, shall file an application for a hearing wherein the applicant shall present evidence as to the proper method of completion of the well and allocation of production to the individual zones.

(3) That the temporary commingling authority set out in this order shall expire 90 days after the date of first commingled production from said well.

(4) That after the date of first commingled production the operator of said well shall immediately notify the supervisor of the Commission's Aztec district office any time the subject well is shut in.

(5) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

DRAFT

DSN/DR

DS

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

~~IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:~~

CASE NO. 5055

Order No. R-4651-A

IN THE MATTER OF CASE NO. 5055
BEING REOPENED PURSUANT TO THE
PROVISIONS OF ORDER NO. R-4651,
RIO ARRIBA COUNTY, NEW MEXICO.

DS

[Handwritten signatures]

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 27, 1974,
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this day of June, 1974, the Commission,
a quorum being present, having considered the testimony, the record,
and the recommendations of the Examiner, and being fully advised
in the premises,

FINDS:

(1) That due public notice having been given as required by
law, the Commission has jurisdiction of this cause and the subject
matter thereof.

(2) That by Order No. R-4651, dated November 16, 1973,
Merrion and Bayless was authorized to complete its Canada Mesa
Well No. 3, located in Unit A of Section 14, Township 24 North,
Range 6 West, NMPM, Rio Arriba County, New Mexico, in such a
manner as to produce gas from the Basin-Dakota Pool, and oil
from the Gallup formation adjacent to the Devils Fork-Gallup Pool
and oil from an undesignated Greenhorn Pool, commingled in the
well bore, through a single string of tubing.

(3) That Merrion and Bayless has completed said well in the above-described manner and Case No. 5055 was reopened pursuant to the provisions of Order No. R-4651 to determine a formula for the allocation of production to each of the zones open to the wellbore in said well.

(4) That the evidence presented indicates that the Gallup ~~zone~~ ^{formation} in the subject well is not in communication with the Gallup formation of the Devils Fork-Gallup Pool and that production from the Gallup formation ^{in the subject well} will not have any significant impact on the volumetric calculation of allowables for wells in said pool.

(5) That production tests of the subject well indicate that all oil produced from the subject well should be attributed to the undesignated Gallup-Greenhorn pool completed in the well, and that all of the gas production from the subject well should be attributed to the Basin-Dakota Pool.

(6) That in order to prevent waste and protect correlative rights, Order No. R-4651 should remain in effect until further order of the Commission.

IT IS THEREFORE ORDERED:

(1) That Orders Nos. ⁽¹⁾(2) and (3) of Order No. R-4651, dated November 16, 1973, are hereby stricken, and the following substituted therefor:

"(1) That the applicant, Merrion & Bayless, is hereby authorized to ~~temporarily~~ complete its Canada Mesa Well No. 3, located in Unit A of Section 14, Township 24 North, Range 6 West, NMPM, Rio Arriba County, New Mexico, in such a manner as to produce gas from the Basin-Dakota Pool and oil from ~~the Gallup formation adjacent to the Devils Fork Gallup Pool and oil from an undesignated Greenhorn Pool,~~ ^{an undesignated} commingled in the wellbore, through a single string of tubing.

Greenhorn Pool

exempt from the special rules pertaining to the Devils Fork-Gallup Pool."

(2) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

DRAFT

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

~~IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:~~

In the matter of Case No. 5055
being reopened pursuant to
the provisions of Order No. R-4651,
Rio Arriba County, New Mexico.

CASE NO. 5055
Order No. R-4651-A

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 27, 1974
at Santa Fe, New Mexico, before Examiner DSN.

NOW, on this _____ day of _____, 19____, the Commission,
a quorum being present, having considered the testimony, the record,
and the recommendations of the Examiner, and being fully advised
in the premises,

FINDS:

(1) That due public notice having been given as required by
law, the Commission has jurisdiction of this cause and the subject
matter thereof.

(2) That by Order No. R-4651, dated November
16, 1973, Merrion and Bayless was authorized
to complete its Canada Mesa Well No. 3, located
in Unit A of Section 14, Township 24 North,
Range 6 West, NMPM, Rio Arriba County,
New Mexico, in such a manner as to
produce gas from the Basin-Dakota Pool
and oil from the Gallup formation adjacent
to the Devil's Fork-Gallup Pool and oil from an
undesignated Greenhorn Pool, commingled in
the well bore, through a single string of tubing.

IT IS THEREFORE ORDERED:

(1) That Order No R-4651, dated November 16, 1973, shall remain in effect until further order of the Commission

and
(1) That Orders Nos. (2)(3), ~~and (4)~~ of Order No R-4651, dated November 16, 1973, are hereby stricken, and the following substituted therefor:

"(2) That all gas production from said well shall be attributed to the basin Dakota Pool, and all oil production from said well shall be attributed to the ~~under~~ Gallup-Greenhorn zone completed in the well

(3) That the aforesaid Canada Mesa Well No. 3 shall be exempt from the ~~special~~ rules pertaining to the Devils Fork Gallup Pool.

Done at

(2) That jurisdiction

Done at

(3) That Merriam and Bayless has completed said well in the above-described manner and Case No. 5055 was reopened ~~to determine~~ pursuant to the provisions of Order No. R-4651 to determine a formula for the allocation of production to each of the zones open to the wellbore in said well.

(4) That the evidence presented indicates that the Gallup zone in the subject well is not in communication with the Gallup formation of the Devils Fork Gallup Pool and that production from

~~(5) That~~ the Gallup formation will not have any significant impact on the volumetric calculation of reserves for wells in said pool.

(5) That production tests of the subject well indicate that all oil produced from the subject well should be ~~allocated~~ ^{attributed} to the undesignated Gallup - Greenhorn pool ~~completed~~ completed in the well, and that all of the gas production from the subject well should be ~~allocated~~ ^{attributed} to the Basin-Dakota Pool.

~~(6) That Order No R in~~
(6) That in order to prevent waste and protect correlative rights, Order No R-4651 should remain in effect until further order of the Commission.