

CASE 1984: Application of Amerada Petr.
Corp. for dual completion of its State BTO
#1 Well, Sec. 34-118-332.

Case No.

1384

Application, Transcript,
Small Exhibits, Etc.

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. 1384
Order No. R-1136-A

APPLICATION OF AMERADA PETROLEUM
CORPORATION FOR A DUAL COMPLETION
IN THE BAGLEY-PENNSYLVANIAN OIL POOL
AND THE BAGLEY-LOWER PENNSYLVANIAN
GAS POOL IN LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on February 26, 1958, at Santa Fe, New Mexico, before Examiner Elvis A. Uts, and this cause again came on for hearing at 9 o'clock a.m. on July 16, 1958, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 6th day of August, 1958, the Commission, a quorum being present, having considered the application and the evidence adduced 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, Amerada Petroleum Corporation, was given temporary authority by Order No. R-1136 to produce its State BTO No. 1 Well, located 990 feet from the South line and 2310 feet from the East line of Section 34, Township 11 South, Range 33 East, NMPM, Lea County, New Mexico, as a dual completion in the Bagley-Lower Pennsylvanian Gas Pool and an undesignated Pennsylvanian oil pool.

(3) That the preponderance of the evidence presented in this case indicates that the oil producing intervals from 8774 to 8798 feet and from 8808 to 8834 feet in the said State BTO No. 1 Well should be designated as an extension of the Bagley-Pennsylvanian Oil Pool.

(4) That the applicant should be permitted to continue to produce the said State BTO No. 1 Well as a dual completion until further order of the Commission.

IT IS THEREFORE ORDERED:

That the applicant, Amerada Petroleum Corporation, be and the same is hereby authorized to continue producing its State BTO

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Case No. 1384
Order No. R-1136-A

No. 1 Well, located 990 feet from the South line and 2310 feet from the East line of Section 34, Township 11 South, Range 33 East, NMPM, Lea County, New Mexico, as a dual completion in the Bagley-Lower Pennsylvanian Gas Pool and the Bagley-Pennsylvanian Oil Pool until further order of the Commission.

PROVIDED HOWEVER, That the applicant shall comply with all the conditions and requirements set forth in Order No. E-1136.

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

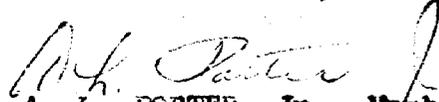
STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION



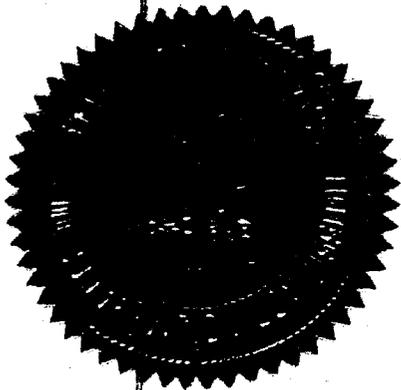
EDWIN L. MCCREAN, Chairman



MURRAY E. MORGAN, Member



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



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DOCKET: REGULAR HEARING JULY 16, 1958

Oil Conservation Commission 9 a.m. Mabry Hall, State Capitol, Santa Fe, NM

- ALLOWABLE:**
- (1) Consideration of the oil allowable for August, 1958.
 - (2) Consideration of the allowable production of gas for August, 1958, from six prorated pools in Lea County, New Mexico; also consideration of the allowable production of gas from seven prorated pools in San Juan and Rio Arriba Counties, New Mexico, for August, 1958.

NEW CASES

CASE 1276: In the matter of the hearing ordered to be called by Order No. R-1031 to permit Amerada Petroleum Corporation and other interested operators to appear and show cause why 320-acre spacing and the Special Rules and Regulations for the Bagley-Lower Pennsylvanian Gas Pool in Lea County, New Mexico, as set forth in Order R-1031 should be continued in effect beyond August 31, 1958.

CASE 1325: In the matter of the hearing ordered to be called by Order No. R-1091 to permit Amerada Petroleum Corporation and other interested operators to appear and show cause why 320-acre spacing and the Special Rules and Regulations for the Bagley-Upper Pennsylvanian Gas Pool in Lea County, New Mexico, as set forth in Order R-1091 should be continued in effect beyond August 31, 1958.

CASE 1384: In the matter of the hearing ordered to be called by Order No. R-1136 to permit Amerada Petroleum Corporation to appear and present additional evidence as to the proper designation of the oil producing intervals in its State BTO No. 1 Well located 990 feet from the South line and 2310 feet from the East line of Section 34, Township 11 South, Range 33 East, in the Bagley-Pennsylvanian area of Lea County, New Mexico, and to show cause why the above-described well should be permitted to continue to produce as a dual completion.

CASE 1480: Southeastern New Mexico nomenclature case calling for an order for the creation of new pools and the extension and reclassification of existing pools in Lea, Eddy and Roosevelt Counties, New Mexico.

- (a) Create a new oil pool for Devonian production, designated as the Dickinson-Devonian Pool, and described as:

TOWNSHIP 10 SOUTH, RANGE 36 EAST, NMPM
Section 34: SW/4

- (b) Create a new oil pool for Queen production, designated as the East Millman-Queen Pool, and described as:

TOWNSHIP 19 SOUTH, RANGE 28 EAST, NMPM
Section 14: SE/4

(c) Create a new oil pool for Bone Springs production, designated as the South Vacuum-Bone Springs Pool, and described as:

TOWNSHIP 18 SOUTH, RANGE 35 EAST, NMPM
Section 22: NW/4

(d) Change the pool limits of the Artesia Pool to Queen, Grayburg, and San Andres.

(e) Extend the Jalmat Pool to include:

TOWNSHIP 22 SOUTH, RANGE 35 EAST, NMPM
Section 10: NE/4
Section 11: NW/4 & W/2 NE/4

(f) Extend the Justis Pool to include:

TOWNSHIP 25 SOUTH, RANGE 37 EAST, NMPM
Section 13: NE/4

(g) Extend the Justis-Fusselman Pool to include:

TOWNSHIP 25 SOUTH, RANGE 37 EAST, NMPM
Section 24: SW/4

(h) Extend the Milnesand-Pennsylvanian Pool, to include:

TOWNSHIP 8 SOUTH, RANGE 34 EAST, NMPM
Section 14: SE/4

(i) Extend the Vandagriff-Keyes Gas Pool to include:

TOWNSHIP 16 SOUTH, RANGE 28 EAST, NMPM
Section 33: SE/4
Section 34: SW/4

TOWNSHIP 17 SOUTH, RANGE 28 EAST, NMPM
Section 4: NE/4

(j) To consider the reclassification of the Four Lakes-Devonian Pool, from an oil pool to a gas pool upon the application of Humble Oil & Refining Company. The present horizontal limits of said pool are as follows:

TOWNSHIP 11 SOUTH, RANGE 34 EAST, NMPM
Section 35: SE/4

TOWNSHIP 12 SOUTH, RANGE 34 EAST, NMPM
Section 1: NW/4
Section 2: NE/4

CASE 148 1: **Northwestern New Mexico nomenclature case calling for an order for the extension of existing pools in Rio Arriba and San Juan Counties, New Mexico.**

(a) **Extend the Aztec-Pictured Cliffs Pool to include:**

TOWNSHIP 28 NORTH, RANGE 8 WEST, NMPM

Section 15: SW/4

Section 16: S/2

Section 17: S/2

TOWNSHIP 29 NORTH, RANGE 10 WEST, NMPM

Section 1: All

TOWNSHIP 30 NORTH, RANGE 10 WEST, NMPM

Section 21: SW/4

Section 28: NW/4

TOWNSHIP 30 NORTH, RANGE 12 WEST, NMPM

Section 1: NW/4

(b) **Extend the South Blanco-Pictured Cliffs Pool to include:**

TOWNSHIP 24 NORTH, RANGE 4 WEST, NMPM

Section 8: SE/4

(c) **Extend the Blanco-Mesaverde Pool to include:**

TOWNSHIP 27 NORTH, RANGE 8 WEST, NMPM

Section 8: All

Section 17: All

Section 18: E/2

Section 29: All

Section 31: E/2

Section 32: N/2

TOWNSHIP 32 NORTH, RANGE 13 WEST, NMPM

Section 35: N/2

(d) **Extend the Bisti-Lower Gallup Oil Pool to include:**

TOWNSHIP 26 NORTH, RANGE 13 WEST, NMPM

Section 18: S/2

Section 19: NE/4

TOWNSHIP 26 NORTH, RANGE 14 WEST, NMPM

Section 13: SE/4

(e) **Extend the Horseshoe-Gallup Oil Pool to include:**

TOWNSHIP 31 NORTH, RANGE 16 WEST, NMPM

Section 33: SE/4 SW/4, S/2 SE/4

Section 34: SW/4 SW/4

(f) Extend the Otero-Gallup Oil Pool to include:

TOWNSHIP 25 NORTH, RANGE 5 WEST, NMPM
Section 32: SE/4

(g) Extend the Verde-Gallup Oil Pool to include:

TOWNSHIP 30 NORTH, RANGE 15 WEST, NMPM
Section 6: SE/4

TOWNSHIP 31 NORTH, RANGE 15 WEST, NMPM
Section 33: SW/4
Section 34: NW/4

CONTINUED CASES

CASE 1451: Application of Amerada Petroleum Corporation for a non-standard gas proration unit. Applicant, in the above-styled cause, seeks an order establishing a 280-acre non-standard gas proration unit in the Justis Gas Pool consisting of the W/2 SW/4 Section 24, NW/4 and SW/4 NE/4 of Section 25, all in Township 25 South, Range 37 East, Lea County, New Mexico, said unit to be dedicated to the applicant's proposed well to be drilled in the NE/4 NW/4 of said Section 25.

CASE 1473: Southeastern New Mexico Nomenclature case.

(1) To reconsider the designation and limits of the South Sawyer-San Andres Pool.

EXAMINED HEARINGS
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
February 26, 1958

IN THE MATTER OF: Case No. 1384

TRANSCRIPT OF PROCEEDINGS

DEARNLEY - MEIER & ASSOCIATES
INCORPORATED
GENERAL LAW REPORTERS
ALBUQUERQUE, NEW MEXICO
3-6691 5-9546

MR. COOLEY: Let's wait until after this witness is finished.

(Witness sworn.)

O. C. McBRYDE, JR.

called as a witness, having been first duly sworn on oath, testified as follows:

DIRECT EXAMINATION

By MR. KELLAHIN:

Q Will you state your name, please?

A O. C. McBryde, Jr.

Q By whom are you employed and in what position?

A I am a petroleum engineer with Amerada Petroleum Corporation.

Q Have you previously testified before the Oil Commission and had your qualifications as an expert engineer accepted by the Commission?

A Yes, sir, I have.

MR. KELLAHIN: Are the witness's qualifications acceptable?

MR. UTZ: The witness has qualified before the Commission in prior cases.

Q Are you familiar with the application in Case 1384?

A Yes, sir.

Q What is proposed under that application?

A We are seeking approval of a dual completion in our State BTO No. 1 in the Bagley-Pennsylvanian Oil Pool and Bagley-Lower Pennsylvanian Gas Pool.

Q Will you give us the location of that well?

A Amerada State BTO No. 1 is located 990 feet from the South line and 2310 feet from the East line of Section 34, Township 11 South, Range 33 East, Lea County, New Mexico.

(Amerada's Exhibit No. 1
marked for identification.)

Q Referring to what has been marked as Amerada's Exhibit No. 1, would you state what that is?

A Exhibit No. 1 is a map of the Bagley Field. We have shown on this map in brown the present horizontal limits of the Bagley-Pennsylvanian Oil Pool, and in green the present horizontal limits of the Bagley-Lower Pennsylvanian Gas Pool. We have also indicated, circled in red, the subject well, the State BTO No. 1. Immediately to the west of the State BTO No. 1 is the Amerada State BTK No. 1, which has just been granted administrative approval as a gas-oil dual in the Upper Pennsylvanian gas zone and the Bagley-Pennsylvanian Oil Pool. To the south of the BTK No. 1 is the Amerada Caudle No. 7 which is dualled in the Upper and Lower Pennsylvanian gas zones. To the west of Amerada's Caudle No. 7, Section number 4, 12 South, 33 East, is Texas Pacific's gas-gas dual; it's also in the Upper and Lower Pennsylvanian gas zones.

Q Does Exhibit No. 1 show the ownership of offset leases to the subject well?

A Yes, sir, it does.

Q Is the Amerada BTO Well No. 1 located within the horizontal

limits of the two pools you mentioned?

A Yes, it's within the horizontal limits of the two pools.

Q Will the well be completed then in the defined limits of the Bagley-Pennsylvanian Oil Pool?

A As I said before, it's within the horizontal limits of the Bagley-Pennsylvanian Oil Pool, but the perforations are outside the present limits, the present vertical limits of the Bagley-Pennsylvanian Oil Pool. On Exhibit No. 2 I have marked in red the perforations, both the oil zone perforations.

(Amerada's Exhibit No. 2
marked for identification.)

Q What is Exhibit No. 2?

A Exhibit No. 2 is an electrical log of the State BTO No. 1, the oil perforations are from 8774 to 8834. I have also marked in red the perforations in the lower gas zone, they are from 9766 to 9820.

Q Are those perforations within the defined vertical limits of the Bagley Oil or Pennsylvanian Gas Pool?

A Yes, they are.

Q Referring to the log again, does that show any separation between the oil zone and the upper gas zone?

A Yes, sir, on the log I have marked the present upper and lower limits of the three pools, the upper gas pool, the oil pool, and the lower gas pool. I also have the productive interval marked for the upper gas pool in this well, and from the base of the upper

gas pool to the top of the oil perforations is the distance of 114 feet. However, the existing lower limits of the Bagley Upper gas pool, which is minus 4510, is only five feet above the top perforations in this oil zone.

Q In your opinion is there effective separation between the two zones?

A Yes, sir, there is.

Q In regard to the oil zone in the BTO Well No. 1, do you have any recommendation as to what should be done with that?

A I would recommend that the case go to nomenclature hearing to extend the limits of the Bagley-Pennsylvanian Oil Pool, I would recommend now, and then that this oil zone that we have found in the State BTO No. 1 be included within the vertical limits of the Bagley-Pennsylvanian Oil Pool.

(Amerada's Exhibit No. 3
marked for identification.)

Q Referring to Exhibit No. 3, will you state what that is?

A Exhibit No. 3 is a schematic of our proposed dual completion. We have shown there the casing, five and a half inch casing set at total depth of 9975. The top of the cement behind the five and a half inch casing is shown at 6336. We have shown the Bagley-Pennsylvanian zone, oil zone perforations from 8774 to 8834. The Bagley-Lower Pennsylvanian gas zone perforation from 9766 to 9820. We have also shown the two parallel strings of two and one-sixteenth O.D. high drill tubing, and the Baker Model "D" production packer separating

the two zones.

Q With that type of completion can you treat the two separate zones, or test them separately, or do any operations which you contemplated may be necessary in this well?

A Yes, sir, we can.

Q In your opinion is a completion of this type in the interest of conservation and the prevention of waste?

A Yes, sir, it is.

MR. KELLAHIN: That's all the questions we have.

MR. UTZ: Does anyone have a question of the witness? Mr. Campbell.

MR. CAMPBELL: Jack M. Campbell, Roswell, New Mexico, appearing on behalf of Texas Pacific Coal and Oil Company. I would like to state at the outset we are not opposing this application for dual completion. We would like, however, to get some explanations from the witness as to their position in connection with this particular upper zone that they're intending to produce as an oil zone.

CROSS EXAMINATION

By MR. CAMPBELL:

Q Did you conduct any bottomhole pressure tests within the defined limits of the Upper Pennsylvanian Gas Pool and the zone that you have perforated here and propose to produce as an oil zone?

A No, sir, we have not as yet.

Q Are you acquainted with the drill stem test information on your father's "B" No. 1 Well?

A I have seen that. I do not have it with me today. I don't remember it.

Q Would it be fair to say that drill stem information obtained on that well is quite similar to the drill stem test information you have obtained on the BTO No. 1 well?

A I have not studied the drill stem test information that we have obtained on the State BTO. It has been quite some time since I looked at the other, so I couldn't answer that.

Q Do you have any opinion as to whether there is a possibility that after this well has been produced in that upper zone for a period of time that it might become a gas distillate well?

A You are speaking of the oil zone in the State BTO No. 1?

Q Yes.

A I wouldn't expect it to.

Q Isn't that what you people expected and did happen to your Mathers "B" 1 well?

A It hasn't happened yet. It's still an oil well. It's outside the limits of the existing pools now.

Q But Amerada did request that it be put within the limits of the gas pool initially, did they not? A That's right.

Q Was that not on the basis that they expected it to change to a gas distillate well after some production history?

A We were basing that on our knowledge of the Amerada Mathers No. 2 in the southeast southeast of Section 3, Township 12 South, Range 33 East. That well was completed in the same zone.

as the Mathers "B" No. 1 and after production for a few years, it did change into gas distillate.

Q Should your BTG No. 1 well, which you have perforated in this new zone, change over a period of time into a gas distillate well, I assume that you would then not undertake to take the position that it was in a separate zone, would you, and produce two wells in that 320 acre gas unit, the south half of Section 34?

A I don't believe I understand your question, Mr. Campbell.

Q What would be your analysis of the situation should this well, during the next six, seven or eight months, become a gas distillate well? It has a higher gas-oil ratio than your Mathers "B" No. 1. Suppose it should become a gas distillate well, what position would you take as to whether it is in the upper gas Pennsylvanian zone, or in this new zone?

A My opinion is that the oil zone that we have encountered in the State BTG No. 1 is not connected to the Upper Pennsylvanian gas zone. There's a separation of some 114 feet there, and it's completely --

Q (Interrupting) The separation between the bottom of the gas zone and the top of the oil zone is only five feet, isn't it?

A The existing vertical limits of the upper gas zone are on a common subsea basis.

Q Yes.

A The productive interval in the Upper Pennsylvanian gas zone in this particular well considerably above the base of the

vertical limits as set out by the Commission. Now the reason that the lower limits of the upper gas zone are only five feet above the perforations here and the productive interval is so high is the fact that the limits of the pool are horizontal, common subsea basis, while the productive interval is a structure, it's higher in one part of the field than in the other. There are numerous, I won't say numerous, I can think of two pools or fields in the southeast that have a common horizontal boundary, the Langley-Mattix and Jalmat is one, and the Eumont and Monument is another.

Q You wouldn't want to use those as horrible examples here?

A I'm not recommending it.

Q You are aware of the fact that this Upper Pennsylvanian Gas Pool is now operating on a temporary order, are you not?

A Yes, sir.

Q It comes up for consideration again in June or July?

A Yes, sir.

Q Would you have any objection just prior to the hearing on the permanent order in this case to run a test on this particular well as to that upper zone to have available information as to the fluid situation at that time?

A What type of test are you talking about, bottom hole pressure?

Q Yes, bottom hole pressure and gas-oil ratio test.

A We will have all that available, I'm certain, on all the wells.

Q I was referring to one shortly before the permanent field

rules come up for consideration, if you could, so that it can definitely be determined at that time that the well is not producing from in fact the Upper Pennsylvanian gas zone. You think you probably will have current information on the well?

A I'm satisfied that we will, Mr. Campbell.

MR. CAMPBELL: That's all.

MR. UTZ: Does anyone else have a question? Mr. Nutter.

By MR. NUTTER:

Q Mr. McBryde, have you already perforated this pool in these two zones?

A Yes, sir, we have.

Q Have you already run these two strings of tubing into the well?

A Yes, sir.

Q Have you tested both of the zones?

A We have run short tests, however, they have been shut in since the dual was effected. I do not have the results of those tests with me.

Q Do you have any information regarding the gravity or the GOR's in this oil zone?

A I do not have that with me.

Q Do you know if it compares with the gravities and the gas-oil ratios as encountered in the wells that are completed within the vertical limits of the Bagley-Pennsylvanian Oil Pool?

A Mr. Nutter, I'm not certain that we have recovered all our

load oil in that zone. We tested it a short time and shut it in, waiting the approval of the dual. I just don't have that information available at the present time.

Q Do you think that such production or tests that you have run to date are premature as to any evaluation of the oil or gas-oil ratios in the zone?

A I couldn't say that they are, because I don't know one way or the other. I don't have those available right today.

Q Do you believe it's possible that the gas-oil ratio and the gravities will be comparable to the wells which are completed?

A It's possible.

Q Do you expect that they will be?

A I'm not sure that I understand just what you mean. Which ones will compare with which other ones?

Q I'm wondering if you expect the gravities and the gas-oil ratios which will be encountered in the oil zone which you have perforated from 8774 to 8834 will be comparable with the gravities and the gas-oil ratios in other wells which are completed within the defined limits of the Bagley-Pennsylvanian Oil Pool.

A I would expect them to be similar.

Q Similar enough to make the assumption that they are in the same pool?

A I would expect that, yes, sir.

Q This present zone which you have perforated is not within the limits, the vertical limits of any pool, is it?

A That is right. If you will notice on Exhibit No. 2, the electrical log, the Bagley-Pennsylvanian oil interval at the present time covered some 600 feet. It's a real long section and has several zones of the kind that we find in the State BTO No. 1 located within that interval.

Q Were any zones within the vertical limits of the Bagley-Pennsylvanian Oil Pool tested?

A I can't answer that for sure. We ran several drill stem tests in this well. I do not have the results of those with me today. I'm quite sure that we tested some intervals. I think we tested everything that looked productive all the way down and as I remember we didn't find anything within the present vertical limits of the Pennsylvanian Oil Pool.

Q Was any interval besides the present perforated interval perforated?

A No, sir.

MR. NUTTER: Thank you, that's all.

By MR. UTZ:

Q Mr. McBryde, am I correct in my understanding that you are recommending that the limits of the Bagley-Pennsylvanian Oil Pool be raised to include these perforations?

A Yes, sir.

Q In this producing zone?

A Yes, sir.

Q Can you say how close that would bring the upper limits of

the oil pool to the base of the Upper Pennsylvanian Gas Pool?

A Within five feet.

Q Wouldn't it be closer than that? That's right, five feet?

A I think that's right.

Q I note on your Exhibit No. 5 which was presented in Case 1220 which set out the vertical limits for these three pools in question that on your State BTD No. 3 the base of the upper Pennsylvanian Gas Pool was 4503. That's getting down to where it's pretty close tolerance, isn't it? I was wondering if we raised the Pennsylvanian Oil Pool we might not get into an overlap on another well.

A That's possible. I'm not familiar with that case, Mr. Utz. It's my opinion that the upper gas zone would not be productive in that well, as I recall.

Q It shows some perforations on this cross-section?

A Is that perforations or porosity? I think that is microlog porosity.

Q It's microlog pay?

A Yes.

Q Then this well is not completed in the Upper Pennsylvanian Gas zone?

A No, sir.

Q Could you give me the ground elevation of the well in question here?

A The State BTO No. 12

Q The BTO No. 1.

A I don't have the ground elevation, the dirt floor elevation is on the log.

Q Yes, I know that it is. You have a subsea datum --

MR. YIRONKA: (Interrupting) If I may be permitted to state, the dirt floor elevation is 5249.

A That's the dirt floor. The ground elevation would be some fourteen feet less than that.

Q Could you send that ground elevation to us?

A Yes, sir.

Q Would you do that?

A Yes, the subsea datums are figured from the dirt floor elevation.

Q All your derrick elevations in this pool are the same, the same distance from the ground?

A That's the way we carry all our maps and elevations, we use the dirt floor elevation.

Q Your subsea is the derrick floor?

A Yes, sir.

Q Has there been any dual completions completed in this pool completed in the same mechanical manner you are proposing here?

A I'm not familiar with the other duals, Mr. Utz. I couldn't answer that. I don't know exactly how they're completed, except the State BTK, and it's not exactly the same.

Q This dual completion you are proposing is the same mechanical

dual completion that has been approved prior by the Commission?

A I can't answer that. I don't know if it has been approved prior. I would think that it would be very similar to our Caudle No. 7. However, I don't have that dual plan with me. I don't know exactly how it is completed. I know we have two strings of tubing there, I would think that it would be very similar.

Q That is a gas-gas dual in the Upper Pennsylvanian and Lower Pennsylvanian?

A Yes, sir.

Q Mr. McBryde, unless the pool limits are changed, then the upper completion in this well will actually be a wildcat completion, will it not?

A Yes, sir.

MR. CAMPBELL: May I ask Mr. McBryde one question?

MR. UTZ: Yes.

By MR. CAMPBELL:

Q Do you know whether your company plans to run a bottom hole fluid analysis on the upper part of your dual completion when you get it cleaned out and load oil back?

A On the oil zone in the State BTO?

Q Yes.

A No, sir, I do not know.

Q Wouldn't that pretty well give you definite indication of whether that was actually an oil reservoir or possibly might be a gas distillate area?

A It possibly would, Mr. Campbell. However, I'm satisfied with the 114 feet of separation between this oil zone and the Bagley-Upper Pennsylvanian Gas zone that they're completely different reservoirs.

Q Of course, that is only in this well here. You don't know what it might be five feet out, do you?

A I know what it is in the State BTK No. 1. We looked on that log and the oil zone that we found in the State BTO No. 1 is present on the electric-log of the State BTK No. 1 with approximately the same vertical separation. However, we did not pick up the oil zone in our samples.

Q You are aware of the fact, of course, that the limitations, the delineation of the Upper Pennsylvanian Gas Pool was upon the recommendations of Amerada, aren't you?

A Yes, sir.

Q So they must have had some basis for setting the lower limit in some well somewhere in order to recommend that vertical limitation in the Upper Pennsylvanian Gas zone?

A Yes, sir.

MR. CAMPBELL: That's all.

By MR. COOLEY:

Q Mr. McBryde, would you have ample time between the present and July 16, 1958, if you were permitted to produce this upper completion, to run detailed analyses of the liquids produced, the GTR's and any other information that can be determined from the

production characteristics of the well to more adequately determine what zone it is actually completed in?

A Yes, sir, we would have time, I think.

Q At the present time it is, the upper zone is a wildcat completion, is it not?

A Yes, sir.

Q It's not within the vertical limits of any defined pool?

A That's right.

Q Would it not be a workable solution to this matter to permit the temporary production of this well until, say August 31st of 1958, which is the same limits placed on the special pool rules for both the Upper and Lower Bagley-Pennsylvanian Pool Rules, and come in for the July 16th hearing in 1958 and present that information and more adequately determine what zone it is completed in, rather than change the vertical limits of any pool on the basis of the scanty information we presently have?

A I think that would be all right.

MR. CAMPBELL: I might say that would be perfectly agreeable with us, provided that information is available at the time of the hearing in July.

MR. COOLEY: Mr. McBryde assures us that they should have that information.

MR. CAMPBELL: He said they would have time. He didn't say they would have it.

MR. COOLEY: That's all the questions I have.

MR. UTZ: Any other questions of the witness?

MR. KELLAHIN: I have one.

MR. UTZ: Mr. Kellahin.

REDIRECT EXAMINATION

By MR. KELLAHIN:

Q In the type of completion you used in this well, do you get effective packer separation between the two zones so as to prevent any possibility of commingling?

A Yes, sir, we do.

MR. KELLAHIN: I would like at this time to offer Exhibits 1 through 3 inclusive.

MR. UTZ: Is there objection to the introduction of Amerada's Exhibits 1, 2, and 3 in this case? If not, they will be so entered. Are there other statements in this case? The witness may be excused.

(Witness excused.)

MR. UTZ: The case will be taken under advisement.

* * * * *

OIL CONSERVATION COMMISSION
P. O. BOX 871
SANTA FE, NEW MEXICO

March 17, 1958

C
O
P
Y

Mr. Jason Kellahin
Kellahin & Fox
P.O. Box 1713
Santa Fe, New Mexico

Dear Mr. Kellahin:

On behalf of your client, Amerada Petroleum Corporation, we enclose two copies of Order R-1136, issued March 13, 1958, by the Oil Conservation Commission in Case 1384, which was heard on February 26th at Santa Fe.

Very truly yours,

A. L. Porter, Jr.
Secretary - Director

bp
Encls.

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 1384
Order No. R-1136

APPLICATION OF AMERADA PETROLEUM
CORPORATION FOR A DUAL COMPLETION
IN THE BAGLEY-PENNSYLVANIAN OIL
POOL AND THE BAGLEY-LOWER PENNSYL-
VANIAN GAS POOL IN LEA COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on February 26, 1958, at Santa Fe, New Mexico, before Elvis A. Utz, Examiner duly appointed by the New Mexico Oil Conservation Commission, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 13th day of March, 1958, the Commission, a quorum being present, having considered the application, the evidence adduced and the recommendations of the Examiner, Elvis A. Utz, 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, Amerada Petroleum Corporation, is the owner and operator of the State BTO No. 1 Well located 990 feet from the South line and 2310 feet from the East line of Section 34, Township 11 South, Range 33 East, NMPM, Lea County, New Mexico.
- (3) That oil was encountered in the said State BTO No. 1 Well at the intervals from 8774 to 8798 feet and from 8808 to 8834 feet and that gas was encountered in said well at the interval from 9766 to 9820 feet.
- (4) That the gas producing interval referred to above is within the vertical and horizontal limits of the Bagley-Lower Pennsylvanian Gas Pool but that the oil producing intervals referred to above are in an undesignated vertical zone between the Bagley-Pennsylvanian oil Pool and Bagley-Upper Pennsylvanian Gas Pool.
- (5) That the applicant proposes that the vertical limits of the Bagley-Pennsylvanian Oil Pool be extended to include the oil producing intervals referred to above.

(6) That the applicant further requests permission to dually complete the said State BTO No. 1 Well in the Bagley-Pennsylvanian Oil Pool (as extended) and the Bagley-Lower Pennsylvanian Gas Pool in such a manner as to permit production from both of said pools through parallel strings of tubing.

(7) That the Bagley-Pennsylvanian Oil Pool should not be extended to include the aforementioned oil producing intervals at the present time since there is not yet sufficient evidence to determine the proper designation of said producing intervals.

(8) That the applicant has already installed the proposed dual completion equipment in the said State BTO No. 1 Well and that it should therefore be permitted to produce said well as a dual completion until such time as the proper designation for the oil producing intervals can be determined.

(9) That a case should be called for the Commission's regular monthly hearing in July, 1958, to permit the applicant to appear and present additional evidence as to the proper designation of the oil producing intervals referred to above.

IT IS THEREFORE ORDERED:

That the applicant be and the same is hereby authorized to dually complete its BTO No. 1 Well, located 990 feet from the South line and 2310 feet from the East line of Section 34, Township 11 South, Range 33 East, NMPM, Lea County, New Mexico, in such a manner as to permit the production of gas from the Bagley-Lower Pennsylvanian Gas Pool and oil from the intervals from 8774 to 8798 feet and from 8808 to 8834 feet in an undesignated Pennsylvanian oil pool through parallel strings of tubing.

PROVIDED HOWEVER, That the authority to produce the said State BTO No. 1 Well under the terms of this order shall expire on September 1, 1958.

PROVIDED FURTHER, That the applicant shall appear at the Commission's regular hearing in July, 1958, and present additional evidence as to the proper designation of the oil producing intervals referred to above and show cause why the authority granted herein should be continued beyond September 1, 1958.

PROVIDED FURTHER, That subject well shall be completed and thereafter produced in such a manner that there will be no commingling within the well-bore, either within or outside the casing, of gas, oil and gas, or oil produced from either or both of the separate strata.

PROVIDED FURTHER, That prior to the actual dual completion the operator shall make pressure tests of the casing to prove that no casing leaks exist. In the event a casing leak is apparent the operator shall take appropriate steps to adequately repair the leak. The results of these tests shall be reported to the Commission on Form C-103.

PROVIDED FURTHER, That upon the actual dual completion of such subject well applicant shall submit to the appropriate District Office of the Commission copies of Oil Conservation Commission Form C-103, Form C-104, Form C-110, and Form C-122, outlining the information required on those forms by existing Rules and Regulations, and two copies of the electric log of the well.

PROVIDED FURTHER, That said subject well for dual completion and production shall be equipped in such a way that reservoir pressures may be determined separately for each of the two specified strata, and further, be equipped with all necessary connections required to permit recording meters to be installed and used at any time as may be required by the Commission or its representatives, in order that natural gas, oil, or oil and gas from each separate stratum may be accurately measured and the gas-oil or gas-liquid ratio thereof determined, and

PROVIDED FURTHER, That the operator shall make any and all tests, including segregation and packer-leakage tests upon completion and annually thereafter during the Annual Gas-Oil Ratio Test Period for the Bagley-Pennsylvanian Oil Pool, commencing in the year 1958, and whenever the packer is disturbed, but not excluding any other tests and/or determinations as deemed necessary by the Commission; the original and all subsequent tests shall be witnessed by representatives of offset operators if any there be at their election, and the results of each test, properly attested to by the applicant herein and all witnesses, shall be filed with the Commission within fifteen (15) days after the completion of such tests, and further, that applicant shall file with the Commission in duplicate a packer-setting affidavit, which affidavit shall be due within fifteen (15) days of the dual completion or whenever the packer is disturbed, and

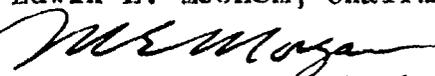
PROVIDED FURTHER, That upon the actual dual completion of such subject well, applicant shall submit to the Commission a diagrammatic sketch of the mechanical installation which was actually used to complete and produce the seal between the strata, and a special report of production, gas-oil ratio or gas-liquid ratio, and reservoir pressure determination for each producing zone or stratum immediately following completion.

IT IS FURTHER ORDERED, That jurisdiction of this cause is hereby retained by the Commission for such further order or orders as may seem necessary or convenient for the prevention of waste and/or protection of correlative rights; upon failure of applicant to comply with any requirement of this order after proper notice and hearing the Commission may terminate the authority hereby granted and require applicant or its successors and assigns to limit its activities to regular single-zone production in the interests of conservation.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


Edwin L. Mechem, Chairman


Murray E. Morgan, Member


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



BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 1325
Order No. R-1091

APPLICATION OF AMERADA PETROLEUM
CORPORATION FOR AN ORDER AMENDING
ORDER NO. R-991, INsofar AS SAID ORDER
PERTAINS TO THE BAGLEY-UPPER PENNSYL-
VANIAN GAS POOL IN LEA COUNTY, NEW MEXICO,
TO EXTEND THE HORIZONTAL LIMITS OF SAID
POOL AND TO PROVIDE FOR STANDARD DRILLING
UNITS OF 320 ACRES.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a. m. on October 17, 1957, and again at 9 o'clock a. m. on November 14, 1957, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 27th day of November, 1957, the Commission, a quorum being present, having considered the application and the evidence adduced, 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, Amerada Petroleum Corporation, proposes the establishment of 320-acre gas well spacing in the Bagley-Upper Pennsylvanian Gas Pool and such other Rules and Regulations as the Commission may deem necessary.
- (3) That there is sufficient evidence to justify the establishment of 320-acre spacing in the Bagley-Upper Pennsylvanian Gas Pool on a temporary basis.
- (4) That the 320-acre spacing units should be comprised of any two contiguous quarter sections of a single governmental section, being a sub-division of the United States Public Lands Survey.

(5) That no well should be drilled to or recompleted in the Bagley-Upper Pennsylvanian Gas Pool nearer than 660 feet to any boundary line of the unit nor nearer than 330 feet to any governmental quarter-quarter section line; provided however that the Secretary-Director of the Commission should have authority to grant exception to the foregoing well location requirements.

(6) That this case should be heard again by the Commission at the monthly hearing in July, 1958, to permit the applicant and all other interested parties to appear and show cause why the spacing provisions of this order should be continued in effect.

(7) That any well presently projected to or completed in the Bagley-Upper Pennsylvanian Gas Pool should be excepted from the 320-acre spacing requirements for said pool.

(8) That the applicant proposes to extend the horizontal limits of the Bagley-Upper Pennsylvanian Gas Pool to include the following acreage:

- TOWNSHIP 11 SOUTH, RANGE 33 EAST, NMPM
- Section 33: S/2 and S/2 N/2
- Section 34: S/2 and S/2 N/2

- TOWNSHIP 12 SOUTH, RANGE 33 EAST, NMPM
- Section 2: W/2 SW/4
- Section 3: N/2, SE/4, and N/2 SW/4
- Section 4: N/2 & N/2 SE/4

(9) That the applicant has proven that the following described acreage can reasonably be expected to be productive of gas from the Bagley-Upper Pennsylvanian Gas Pool:

- TOWNSHIP 11 SOUTH, RANGE 33 EAST, NMPM
- Section 34: S/2

and that the horizontal limits of the Bagley-Upper Pennsylvanian Gas Pool should be extended to include said acreage.

(10) That the following described acreage is presently within the horizontal limits of the Bagley-Upper Pennsylvanian Gas Pool, as defined by the Commission:

- TOWNSHIP 12 SOUTH, RANGE 33 EAST, NMPM
- Section 3: N/2 and SE/4
- Section 4: NE/4

(11) That the applicant has failed to prove that the following described acreage can reasonably be expected to be productive of gas from the Bagley-Upper Pennsylvanian Gas Pool:

TOWNSHIP 11 SOUTH, RANGE 33 EAST, NMPM

Section 33: S/2 & S/2 N/2
Section 34: S/2 N/2

TOWNSHIP 12 SOUTH, RANGE 33 EAST, NMPM

Section 2: W/2 SW/4
Section 3: N/2 SW/4
Section 4: NW/4 & N/2 SE/4

(12) That certain wells have been completed within one mile of the defined limits of the Bagley-Upper Pennsylvanian Gas Pool which are capable of producing liquid hydrocarbons from the Upper Pennsylvanian (8600-foot) zone with gravities in the range which is commonly accepted to be that of crude petroleum oil, and that such wells should be classified as oil wells.

(13) That an oil well in the Bagley-Upper Pennsylvanian Gas Pool should be defined as a well which produces liquid hydrocarbons possessing a corrected gravity of 55° API or less.

(14) That an oil well in the Bagley-Upper Pennsylvanian Gas Pool should have dedicated thereto a proration unit consisting of 40 acres, more or less, being a governmental quarter-quarter section legal sub-division of the United States Public Lands Survey.

(15) That no acreage should be simultaneously dedicated to an oil well and to a gas well in the Bagley-Upper Pennsylvanian Gas Pool.

IT IS THEREFORE ORDERED:

(1) The Special Rules and Regulations for the Bagley-Upper Pennsylvanian Gas Pool, as set forth in Order R-991, be and the same are hereby superseded by the Special Rules and Regulations hereinafter set forth.

(2) That any well which was projected to or completed in the Bagley-Upper Pennsylvanian Gas Pool prior to the effective date of this order be and the same is hereby granted an exception to Rule 2 (a) of the Special Rules and Regulations hereinafter set forth which requires that each well drilled or recompleted in the Bagley-Upper Pennsylvanian Gas Pool shall have dedicated thereto a tract comprising 320 acres.

Further, that any increase in the acreage dedicated to any such excepted well shall become effective the first day of the month following receipt by the Commission of Commission Form C-128, Well Location and Acreage Dedication Plat, provided said Form C-128 indicates that the acreage dedication to such well has been increased in conformance with the Special Rules and Regulations.

(3) That the horizontal limits of the Bagley-Upper Pennsylvanian Gas Pool,

as set forth in Exhibit "A" of Order R-991, and as extended by Order R-1059, be and the same are hereby extended to include therein:

TOWNSHIP 11 SOUTH, RANGE 33 EAST, NMPM
Section 34: S/2

(4) That the Special Rules and Regulations hereinafter set forth shall be of no further force nor effect after August 31, 1953. (1958)

(5) That this case shall be called for hearing before the Commission at the monthly hearing in July, 1958, to permit the applicant and all other interested parties to appear and present the results of bottom-hole pressure tests, interference tests, and/or such other evidence as may be available to show cause why the Special Rules and Regulations hereinafter set forth should be continued in effect beyond August 31, 1958.

(6) That special pool rules applicable to the Bagley-Upper Pennsylvanian Gas Pool be and the same are hereby promulgated as follows:

**SPECIAL RULES AND REGULATIONS
FOR THE
BAGLEY-UPPER PENNSYLVANIAN GAS POOL**

RULE 1. Any well drilled a distance of one mile or more outside the boundary of the Bagley-Upper Pennsylvanian Gas Pool shall be classified as a wildcat well. Any well drilled less than one mile outside the boundary of the Bagley-Upper Pennsylvanian Gas Pool shall be spaced, drilled, and operated in accordance with the Rules and Regulations in effect in said Bagley-Upper Pennsylvanian Gas Pool provided said well is projected to and/or completed in the so-called "8600-foot" zone.

RULE 2. (a) That each well drilled or recompleted in the Bagley-Upper Pennsylvanian Gas Pool shall be located on a tract consisting of approximately 320 acres comprising any two contiguous quarter sections of a single governmental section, being a legal sub-division of the United States Public Lands Survey.

(b) The Secretary of the Commission shall have authority to grant an exception to Rule 2 (a) without notice and hearing where application has been filed in due form and where the following facts exist and the following provisions are complied with.

1. The non-standard gas proration unit consists of contiguous quarter-quarter sections or lots.

2. The non-standard proration unit lies wholly within a single governmental section.

3. The entire non-standard gas proration unit may reasonably be presumed to be productive of gas.

4. The length or width of the non-standard gas proration unit does not exceed 5280 feet.

5. That applicant presents written consent in the form of waivers from all offset operators and from all operators owning interests in the section in which any part of the non-standard gas proration unit is situated and which acreage is not included in said non-standard gas proration unit.

6. In lieu of Paragraph 5 of this Rule, the applicant may furnish proof of the fact that all of the aforesaid operators were notified by registered mail of his intent to form such non-standard gas proration unit. The Secretary of the Commission may approve the application, if, after a period of 30 days following the mailing of said notice, no operator has made objection to the formation of such non-standard gas proration unit.

RULE 3. (a) That no well shall be drilled to or recompleted in the Bagley-Upper Pennsylvanian Gas Pool nearer than 660 feet to any boundary line of the unit nor nearer than 330 feet to any governmental quarter-quarter section line.

(b) The Secretary-Director of the Commission shall have authority to grant exception to the requirements of Rule 3 (a) without notice and hearing where a verified application therefor has been filed in due form and the necessity for the unorthodox location is based on topographical conditions or is occasioned by the recompletion of a well previously drilled to another horizon.

Applicants shall furnish all operators within a 5280-foot radius of the subject well a copy of the application to the Commission, and applicant shall include with his application a list of names and addresses of all operators within such radius, together with a stipulation that proper notice has been given said operators at the addresses given. The Secretary-Director of the Commission shall wait at least 20 days before approving any such unorthodox location, and shall approve such unorthodox location only in the absence of objection from any offset operators. In the event an operator objects to the unorthodox location the Commission shall consider the matter only after proper notice and hearing.

RULE 4. Each gas purchaser in the Bagley-Upper Pennsylvanian Gas Pool shall take ratably from all wells producing from said common source of supply, apportioning its takes during any given calendar year among said wells on the basis of the acreage dedicated thereto.

RULE 5. No natural gas nor casinghead gas produced from the Bagley-Upper Pennsylvanian Gas Pool shall be flared or vented unless specifically authorized by the Commission after notice and hearing.

-6-

CASE NO. 1325
Order No. R-1091

RULE 6. The monthly gas production from each well and from each common source of supply shall be metered separately and the gas production and associated liquid hydrocarbon production therefrom shall be reported to the Commission in accordance with the applicable Commission Rules and Regulations.

RULE 7. An oil well in the Bagley-Upper Pennsylvanian Gas Pool shall be defined as a well which produces hydrocarbons possessing a gravity of 55° API or less, corrected to 60° Fahrenheit.

RULE 8. An oil well in the Bagley-Upper Pennsylvanian Gas Pool shall have dedicated thereto a proration unit consisting of 40 acres, more or less, being a governmental quarter-quarter section legal sub-division of the United States Public Lands Survey.

RULE 9. No acreage shall be simultaneously dedicated to an oil well and to a gas well in the Bagley-Upper Pennsylvanian Gas Pool.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

EDWIN L. MECHEM, Chairman

MURRAY E. MORGAN, Member

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

S E A L

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OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Date 2-27-58

CASE NO. 1384

HEARING DATE 2-26-58

My recommendations for an order in the above numbered case(s) are as follows:

1. The Dual Completion as requested by the applicant be approved ~~with~~ as follows:
2. The upper completion as shown on Exhibit #3 of this case. 5774-5798; 8808-8834 but be considered to be ^{an} inadequate pool until such time as the applicant provides the Commission with sufficient evidence to show that the well is actually completed in the Bentley-Kenn. oil pool. Such evidence shall be forthcoming not later than the July, 16, 1958. Regulated hearing which hearing is required by order R-1041. ^{located SE SW Sec 9-115-38E}
3. The ~~BTA~~ applicants BTA #1 ^{now complete} in the upper Kenn. Pool.

Frank H. [Signature]
Staff Member

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF AMERADA)
 PETROLEUM CORPORATION FOR AN ORDER AMENDING)
 EXISTING ORDERS, FOR PROMULGATING RULES AND)
 REGULATIONS RELATING TO GAS POOL DELINEATION,)
 GAS PRORATION, AND OTHER RELATED MATTERS AFFECTING)
 THE POOL OR POOLS UNDERLYING THE S/2, S/2)
 N/2 Sec. 33; S/2, NW/4, NE/4 Sec. 34; SW/4 Sec.)
 35-11S-33E; N/2, N/2 SE/4 Sec. 4; N/2, N/2 SW/4,)
 SE/4 SW/4, SE/4 Sec. 3; NW/4, W/2 SW/4 Sec. 2;)
 NE/4 Sec. 10; W/2 NW/4 Sec. 11-12S-33E; All in)
 Lea County, New Mexico.)

CAUSE NO. 1220APPLICATION

Comes now, Amerada Petroleum Corporation, Tulsa, Oklahoma, and alleges and states:

1. That Applicant has drilled and dually completed the J.T.Caudle Well #7, located in the center of the NE/4 NW/4 Sec. 3-12S-33E, Lea County, New Mexico, and tested gas in paying quantities in two separate sources of supply, the first in what is commonly known as the 9800 feet Pennsylvanian zone with the top encountered at 9756 feet and the base at 9925 feet; and in the 8600 feet zone, called the Permo-Penn, the top of which is at 8583 feet and the base at 8645 feet.

2. That other wells in this area, as shown on the attached plat, are completed and producing from the two separate sources referred to above, said wells including:

- (a) Shell-Amerada State Well A-1, located in SE/4 SE/4 Sec. 33-11S-33E, completed in and producing from the 9800 feet zone on an 160-acre unit comprising the SE/4 of Sec. 33;
- (b) The Texas Pacific Coal & Oil Company Well #C-1, located in the NE/4 NE/4 Sec. 4-12S-33E, completed in the 9800 feet zone, capable of producing in paying quantities, and believed to be on an 160-acre unit comprising the NE/4 of Sec. 4;
- (c) The Amerada-Mathers #2 Well, located in SE/4 SE/4 Sec. 3-12S-33E, classified as an oil well but now producing gas and distillate from the 8600 feet Permo-Penn zone.

3. That Applicant has knowledge that other wells located in this area and completed in the Devonian encountered one or both of the reservoirs referred to herein.

4. That the 9800 feet Pennsylvanian zone underlies all or a substantial portion of (the S/2, S/2 N/2 Sec. 33; S/2, S/2 NW/4, NE/4 Sec. 34; SW/4 Sec. 35-11S-33E; and N/2 NW/4, SE/4 NW/4, NE/4, N/2 SE/4 Sec. 4; N/2, N/2 SW/4, SE/4 SW/4, SE/4 Sec. 3; NW/4, W/2 SW/4 Sec. 2-12S-33 E, Lea County, New Mexico)

5. That the 8600 feet Permo-Penn zone underlies all or a substantial portion of (the SW/4 SW/4, E/2 SW/4, SE/4, SE/4 NE/4 Sec. 33; S/2, S/2 N/2 Sec. 34; in 11S-33E; and the N/2, N/2 SE/4 Sec. 4; E/2, N/2 SW/4, SE/4 Sec. 3; N/2 SW/4 Sec. 2; NW/4 Sec. 10; W/2 NE/4 Sec. 11-12S-33E, Lea County, New Mexico.)

6. That one well in each of the two reservoirs may efficiently and economically drain a minimum area of 640 acres.

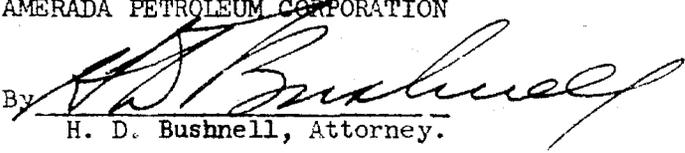
7. That in order to properly develop the two sources of supply to prevent waste and avoid the completion of unnecessary wells and to protect correlative rights of interested parties therein, it is necessary and proper for the Commission to enter its order defining the vertical and horizontal limits of each of the separate reservoirs, to allocate and prorate the gas production among the several wells in each reservoir and to enter such other special rules as the Commission may deem necessary.

WHEREFORE, Applicant respectfully requests that the Commission set this application for public hearing at the time and place to be fixed by the Commission, that due and proper notice be given as required by law, and at the conclusion of said hearing the Commission make and enter its order defining the proper productive limits of the two separate reservoirs, referred to above, and enter such other rules and regulations as the Commission deems necessary for the purposes herein stated.

DATED, this 11th day of February, 1957.

AMERADA PETROLEUM CORPORATION

By


H. D. Bushnell, Attorney.

DOCKET: EXAMINER HEARING FEBRUARY 26, 1958

Oil Conservation Commission 9 a.m., Mabry Hall, State Capitol, Santa Fe, NM

The following cases will be heard before Elvis A. Utz, Examiner:

- CASE 1382: In the matter of the application of Buffalo Oil Company to amend Order No. 821. Applicant, in the above-styled cause, seeks an order amending Order No. 821 to permit simultaneous production from the Grayburg-San Andres pay of the Maljamar Field from the Baish "A" Well No. 15 and Baish "A" Well No. 21, located in the NE/4 of the SW/4 of Section 21, Township 17 South, Range 32 East, Lea County, New Mexico.
- CASE 1383: Application of Forest Oil Corporation for a dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its State "A" No. 1 Well located 660 feet from the North line and 660 feet from the East line of Section 26, Township 16 South, Range 33 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Wolfcamp formation adjacent to the Kemnitz Wolfcamp Pool through the casing-tubing annulus, and to permit the production of oil from an undesignated Pennsylvanian oil pool through the tubing.
- CASE 1384: In the matter of the application of Amerada Petroleum Corporation for a dual completion. Applicant, in the above-styled cause, seeks an order authorizing an oil-gas dual completion for its State BTO No. 1 Well, located 990 feet from the South line and 2310 feet from the East line of Section 34, Township 11 South, Range 33 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Bagley-Pennsylvanian (oil) Pool and the production of gas from the Bagley-Lower Pennsylvanian Gas Pool through parallel strings of tubing.
- CASE 1385: In the matter of the application of Gulf Oil Corporation for permission to produce more than eight wells into a common tank battery. Applicant, in the above-styled cause, seeks an order granting permission to produce a maximum of sixteen oil wells in the Eumont Gas Pool into a common tank battery on its Arnott-Ramsay "D" Lease comprising All of Section 33, Township 21 South, Range 36 East, Lea County, New Mexico.
- CASE 1386: In the matter of the application of Shell Oil Company for permission to commingle the production from two separate leases. Applicant, in the above-styled cause, seeks an order granting permission to commingle the production from the following described leases in the Monument Pool:
Cooper "A" Lease, NW/4 NE/4 Section 4;
Cooper "B" Lease, N/2 NW/4 and SW/4 NW/4 Section 4;
all in Township 20 South, Range 37 East, Lea County, New Mexico. Applicant proposes to allocate the individual lease production on the basis of monthly well tests.

CASE 1387:

In the matter of the application of Shell Oil Company for permission to commingle the production from two separate federal leases. Applicant, in the above-styled cause, seeks an order granting permission to produce the following described leases in the West Henshaw-Grayburg Pool into common storage:

Taylor Federal Lease consisting of Lots 9, 10, & 11 of Section 4;

Spencer Federal "A" Lease consisting of Lots 13, 14, 15 & 16 of Section 4;

all in Township 16 South, Range 30 East, Eddy County, New Mexico. Applicant proposes to continuously meter the production from each lease.

CASE 1388:

In the matter of the application of El Paso Natural Gas Products Company for an unorthodox gas well location. Applicant, in the above-styled cause, seeks an order approving the unorthodox gas well location for its Chimney Rock No. 1 Well located 1880 feet from the South line and 340 feet from the East line of Section 23, Township 31 North, Range 17 West, in an undesignated Gallup gas pool in San Juan County, New Mexico.

CASE 1389:

In the matter of the application of Skelly Oil Company for an unorthodox oil well location. Applicant, in the above-styled cause, seeks an order approving the unorthodox oil well location of its C. W. Roberts Well No. 3 located 1190 feet from the South line and 1450 feet from the East line of Section 18, Township 25 North, Range 3 West, in an undesignated Dakota oil pool in Rio Arriba County, New Mexico.

ir/

1000 1384
Drawer D
Monument, New Mexico
January 28, 1958

New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Re: Application to Dually Complete
Amerada State BT"O" No. 1,
Bagley Pennsylvanian Pool,
Lea County, New Mexico

Gentlemen:

By this letter of application Amerada Petroleum Corporation wishes to state the following:

- A. That the Amerada State BT"O" No. 1 is located 990 feet FSL and 2310 feet FEL of Section 34, Township 11 South, Range 33 East, Lea County, New Mexico. This well is located in the SW/4 of the SE/4 of Section 34, and was completed December 15, 1957 at a total depth of 9975 feet. The attached Exhibit "A" shows the location of this well on the Amerada State BT"O" Lease together with the location of all offset wells.
- B. That the subject well has 5-1/2" casing set at 9975 feet with 900 sacks of cement. The top of the cement behind the 5-1/2" casing is at 6336 feet.
- C. That the applicant has dually completed the subject well in the following manner:
 - (1) Perforated the 5-1/2" casing within the approximate interval of 8774' to 8798' and 8808' to 8834' in the Bagley Pennsylvanian Oil Zone. *oil*
 - (2) Perforated the 5-1/2" casing within the approximate interval of 9766' to 9820' in the Bagley-Lower Pennsylvanian Gas Zone. *gas*
 - (3) Ran two strings of 2-1/16" OD Hydril tubing with Baker Model "D" production packer set at 9740 feet and 12 - 2-1/16" G.O.T. Type SSC flow valve mandrels on upper oil string.
 - (4) Produced the Bagley-Lower Pennsylvanian Gas - Zone through the lower 2-1/16" OD tubing and the Bagley Pennsylvanian Oil Zone through the upper 2-1/16" OD tubing with flow valve mandrels. *James P. ...*

January 28, 1958

The attached Exhibit "B" is a diagrammatic sketch of the dual completion.

- D. That the granting of this application to produce this well as a dual completion with gas from the Bagley-Lower Pennsylvanian formation and oil from the Bagley Pennsylvanian formation is in the interest of conservation and the protection of correlative rights.
- E. That the applicant will comply with all rules and regulations of the New Mexico Oil Conservation Commission to maintain separation of production from the two pay zones.
- F. That the manner and method of dually completing the subject well is mechanically feasible and practical.
- G. That by copy of this letter of application all offset operators are notified of this dual completion by registered mail.

Therefore, Amerada Petroleum Corporation requests that the Oil Conservation Commission grant administrative approval to produce the subject well as a dual completion as set forth in this application.

Respectfully submitted,

AMERADA PETROLEUM CORPORATION

By *D. C. Capps*
D. C. Capps
District Superintendent

PJP/vh

STATE OF NEW MEXICO }
COUNTY OF Lea }

Before me, the undersigned authority, on this day personally appeared D. C. Capps, known to me to be the person whose name is subscribed to this instrument, who after being by me duly sworn on oath, states that he has knowledge of all facts stated above and that the same is a true and correct statement of the facts therein recited.

Subscribed and sworn to before me on this the 28th day of January, 1958.

My Commission Expires 8-30-61

Harold E. Meitz
Notary Public in and for
Lea County, New Mexico

cc: Texas Pacific Coal & Oil Company
Box 1688, Hobbs, New Mexico

Gulf Oil Corporation
Box 1667, Hobbs, New Mexico

NEW MEXICO OIL CONSERVATION COMMISSION
Well Location and Acreage Dedication Plat

Section A.

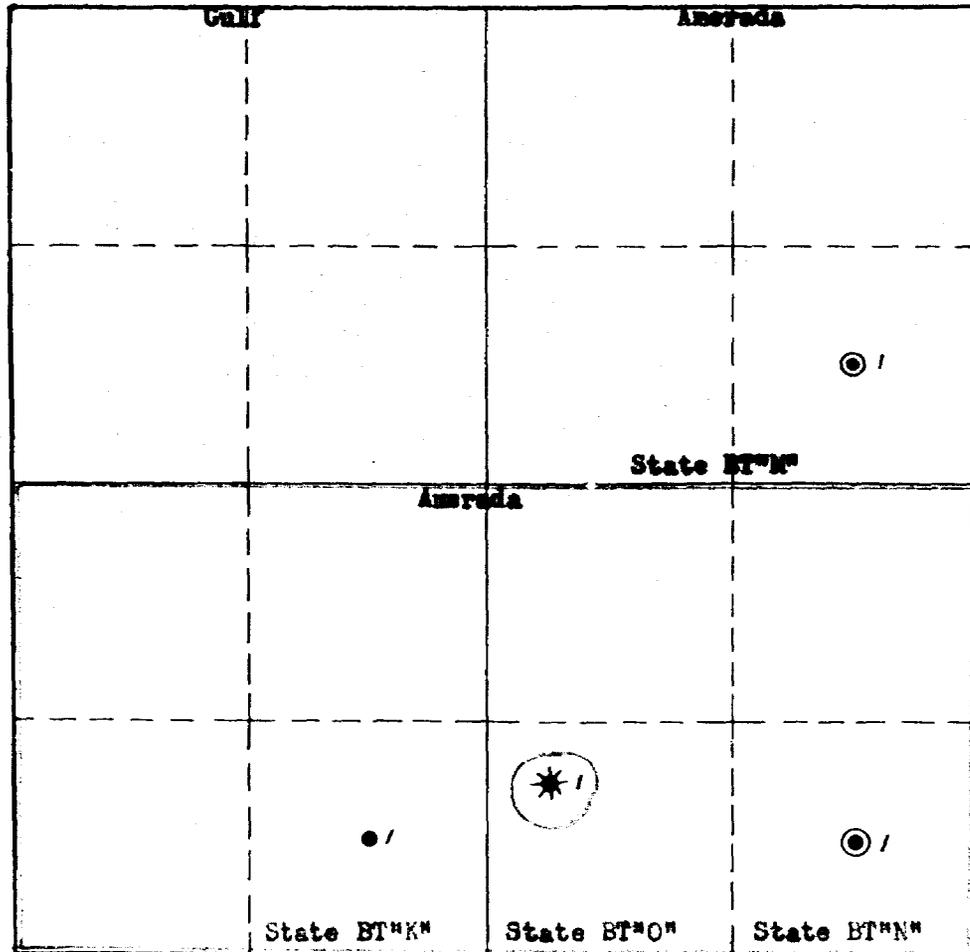
Date January 28, 1958

Operator Amerada Petroleum Corporation Lease State BT⁰N
Well No. 1 Unit Letter 0 Section 34 Township 11-S Range 33-S NMPM
Located 970 Feet From South Line, 2310 Feet From East Line
County Lea G. L. Elevation _____ Dedicated Acreage 320 Acres
Name of Producing Formation Bagley-Lower Perm. Pool Bagley-Pennsylvanian

1. Is the Operator the only owner* in the dedicated acreage outlined on the plat below?
Yes No _____.
2. If the answer to question one is "no," have the interests of all the owners been consolidated by communitization agreement or otherwise? Yes _____ No _____. If answer is "yes," Type of Consolidation _____
3. If the answer to question two is "no," list all the owners and their respective interests below:

| <u>Owner</u> | <u>Land Description</u> |
|--------------|-------------------------|
| | |
| | |
| | |

Section B



This is to certify that the information in Section A above is true and complete to the best of my knowledge and belief.

Amerada Petroleum Corporation

(Operator)

D. C. Capps
(Representative)

Drawer D - Monument, N.M.

Address

This is to certify that the well location shown on the plat in Section B was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed _____

Registered Professional Engineer and/or Land Surveyor.

Certificate No. _____

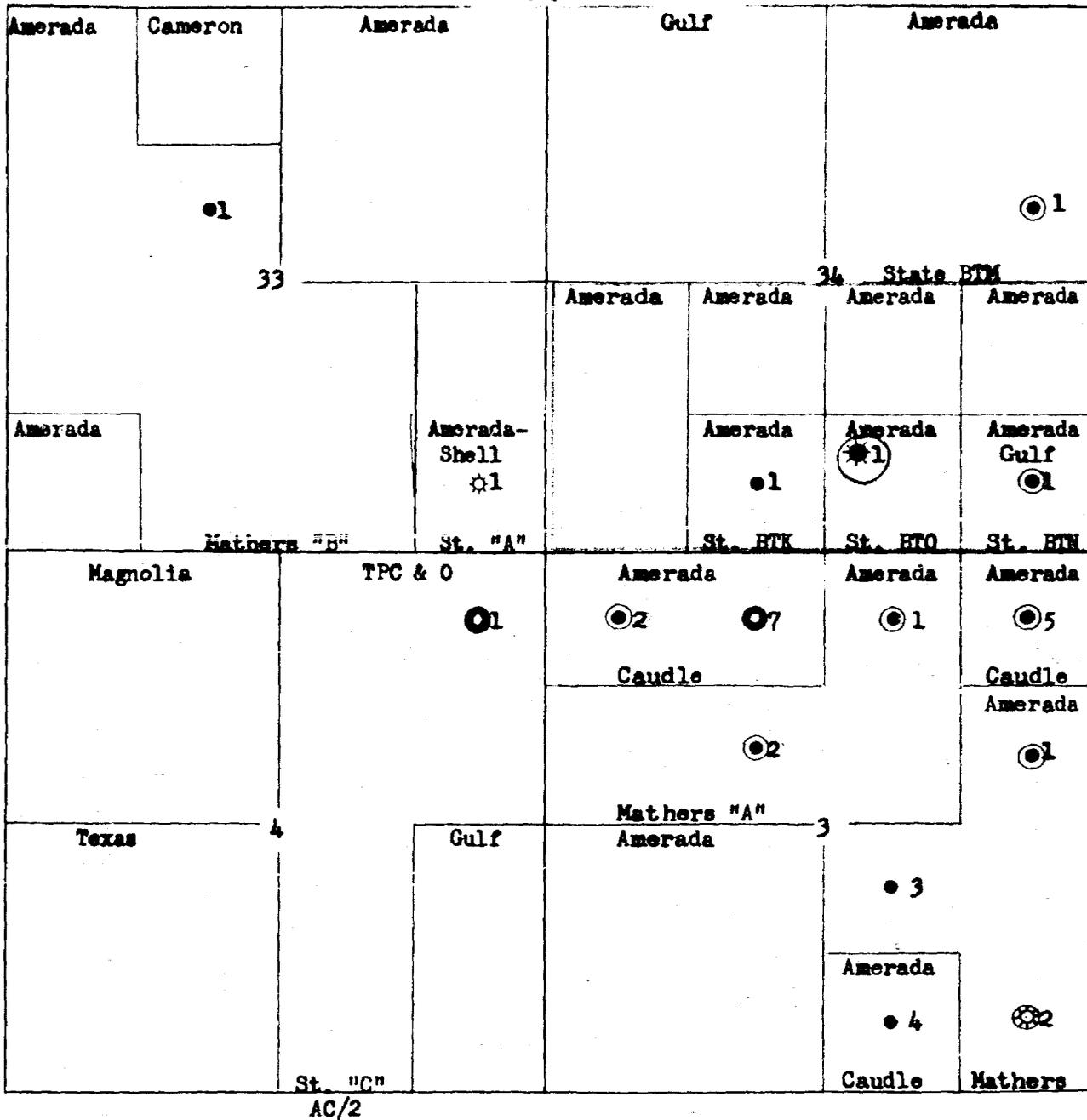
(See instructions for completing this form on the reverse side)

INSTRUCTIONS FOR COMPLETION:

1. Operator shall furnish and certify to the information called for in Section A.
2. Operator shall outline the dedicated acreage for both oil and gas wells on the plat in Section B.
3. A registered professional engineer or land surveyor registered in the State of New Mexico or approved by the Commission shall show on the plat the location of the well and certify this information in the space provided.
4. All distances shown on the plat must be from the outer boundaries of Section.
5. If additional space is needed for listing owners and their respective interests as required in question 3, Section A, please use space below

* "Owner" means the person who has the right to drill into and to produce from any pool and to appropriate the production either for himself or for himself and another. (65-3-29 (e) NMSA 1953 Comp.)

R 33 E



T
11
S

T
12
S

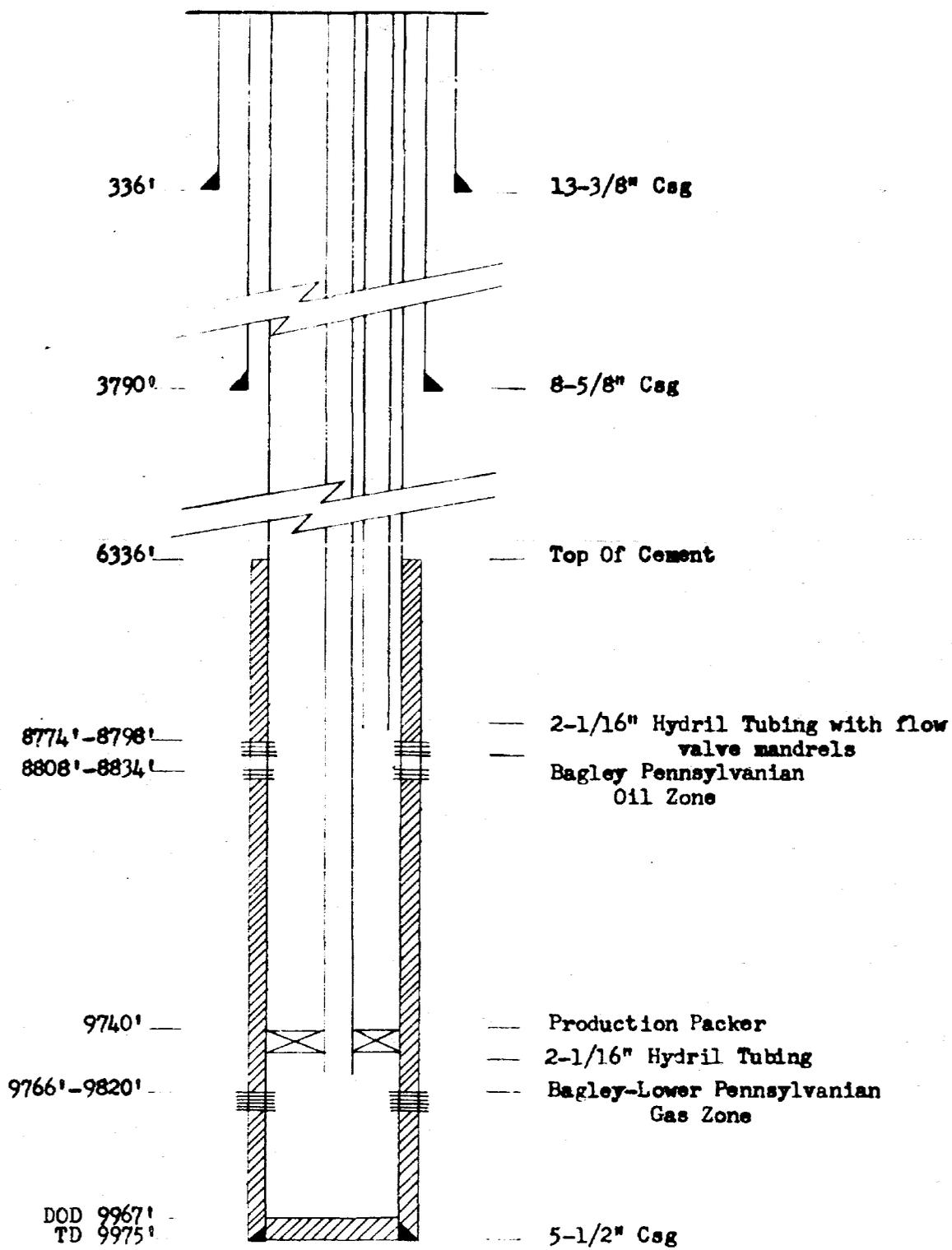
AMERADA PETROLEUM CORPORATION

State BTO No. 1

SW/4 of SE/4 of Sec. 34, T-11-S, R-33-E

- ☉ Devonian Oil
- ☼ Bagley-Lower Penn Gas
- ☼ Bagley-Upper Penn Gas
- Bagley Penn Oil
- ☼ Bagley Penn-Bagley Lower Penn Dual
- ☼ Bagley Penn-Bagley Upper Penn Dual
- ☉ Bagley Upper-Bagley Lower Penn Dual

EXHIBIT "A"



AMERADA PETROLEUM CORPORATION

Dual Completion

State 3T"O" No. 1

EXHIBIT "B"

WAYS OF SERVICE
This is a fast message unless its deferred character is indicated by the proper symbol.

WESTERN UNION TELEGRAM

SYMBOLS
DL = Day Letter
NL = Night Letter
LT = International Letter Telegram

1201

W. P. MARSHALL, PRESIDENT

The filing time shown in the date line on domestic telegrams is STANDARD TIME at point of origin. Time of receipt is STANDARD TIME at point of destination.

LA154 SSK252

(35)...

L HBA086 PD=HOBBS NMEX 5 332PMM=

1958 FEB 5 PM 3 47

OIL CONSERVATION COMMISSION=

BOX 871 SANTA FE NMEX=

ATTN A L PORTER JR: PLEASE CONSIDER AMERADAS APPLICATION
DATED JANUARY 28TH 1958 FOR ADMINISTRATIVE APPROVAL ON
DUAL COMPLETION OF STATE BTO #1 TO BE APPLICATION
FOR EXAMINER HEARING=

AMERADA PETROLEUM CORP D C CAPPS DISTRICT SUPT=

25 FEB 5 1958

MAIN OFFICE OCC

Case 1384

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

Case 1584

NEW MEXICO
OIL CONSERVATION COMMISSION
P. O. Box 871
Santa Fe, New Mexico

Date February 6, 1958

Amerada Petroleum Corporation
Drawer D
Monument, New Mexico

ATTENTION: D. C. Capps

Gentlemen:

Your application for ~~permission to dually complete your Amerada State~~
~~BTO No. 1 Well in the Bagley-Pennsylvanian (Oil) Pool and the Bagley-Lower~~
~~Pennsylvanian Gas Pool in Lea County, New Mexico,~~

dated January 28, 1958 has been received, and has been tentatively
scheduled for hearing before an examiner on
February 26, 1958

A copy of the docket will be forwarded to you as soon as the matter is
advertised.

Very truly yours,

A. L. Porter, Jr.
A. L. PORTER, Jr.,
Secretary-Director

ga

*Docket Mailed 2-17-58
BP*

6770
D.F. 4259
- 4515

4770
4515
275

9766
D.F. 4259
- 5407

- 4515 8774'-8798'
8808'-8834'

- 5407 9766'-9820'

DOD 9967'
TD 9975'

3361'

3790'

6336'

9740'

13-3/8" Csg

8-5/8" Csg

Top Of Cement

2-1/16" Hydril Tubing with flow
valve mandrels
Bagley Pennsylvanian
Oil Zone

Baker Model
"D" Retainer
Production Packer
2-1/16" Hydril Tubing
Bagley-Lower Pennsylvanian
Gas Zone

5-1/2" Csg

4510 Bagley Upper Penn

AMERADA PETROLEUM CORPORATION

Dual Completion

State BT"O" No. 1

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
Amerada EXHIBIT No. 3
CASE 1887

EXHIBIT No. 3