

Casa No.

317

Application, Transcript,
Small Exhibits, Etc.

BEFORE THE
OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO

Transcript of Hearing
Case No. 317
October 23, 1951

E. E. GREESON
ADA DEARNLEY
COURT REPORTERS
BOX 1302
PHONES 5-9422 AND 5-9546
ALBUQUERQUE, NEW MEXICO

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Case No. 317

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October 23, 1951

MR. SPURRIER: We will now proceed to Case No. 317.

(Mr. Kellahin reads the Notice of Publication.)

MR. SPURRIER: This case was previously heard as Case 283 and at that time testimony was taken. The reason for readvertisement -- that is too short a time in the advertisement of 283. So the Commission will take -- recognize -- the testimony which was given in Case 283 and incorporate it in this case without objection. Does anyone have any objection or comment? If not, the case will be taken under advisement..

STATE OF NEW MEXICO)
 : SS
COUNTY OF BERNALILLO)

I HEREBY CERTIFY that the foregoing and attached transcript of hearing before the Oil Conservation Commission in Case No. 317, taken on October 23, 1951, at Santa Fe, is a true and correct record of the same to the best of my knowledge, skill and ability.

DATED at Albuquerque, New Mexico, this 19 day of November, 1951.

G. E. Meerson
REPORTER

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO
SANTA FE, NEW MEXICO

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

CASE NO. 317
ORDER NO. R - 110

THE APPLICATION OF THE OIL CON-
SERVATION COMMISSION OF NEW
MEXICO UPON ITS OWN MOTION FOR
AN ORDER AMENDING ORDER NUMBER
799 RELATING TO THE BLANCO POOL,
SAN JUAN COUNTY, NEW MEXICO,
SPECIFICALLY INCLUDING SECTION
4-A CASING AND CEMENTING PROGRAM,
AND OTHER MATTERS.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This matter came on regularly for hearing on October 23, 1951, at 10 a.m., at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter called the "Commission".

NOW, on this 9th day of November, 1951, the Commission, a quorum being present, having considered the testimony adduced and exhibits received at said hearing, 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, of all interested parties, and the subject matter thereof.

(2) That this matter originally came up for hearing on petition of the Blanco Gas Company for an exception to Section 4-A of Order 799, Blanco Pool Casing Requirements, San Juan County, in Case Number 283, which Case Number 283 was dismissed by Commission Order Number R-90.

(3) That evidence submitted and testimony received in Case Number 283 tended to show modification of Order Number 799 is advisable and necessary.

(4) That Order Number 799 relating to the Blanco Pool, in San Juan County, New Mexico, should be amended to provide for the orderly development of the pool as defined and described in Order Number R-89 issued in Case Number 291 and designated as the Blanco (Mesaverde) Pool, and as the pool may hereafter be changed or extended, for the purpose of promoting conservation and preventing waste, and as amended herein, be the special pool rules of the Blanco (Mesaverde) Pool as described in Order Number R-89.

IT IS THEREFORE ORDERED:

(1) That Order Number 799, being the Blanco Pool special rules, as hereinafter amended shall be the rules of the Blanco (Mesaverde) Pool, as said pool is more fully defined and described in Commission Order Number R-89, and as said pool may hereafter be changed, reduced or extended.

(2) That Order Number 799 be, and the same hereby is amended as follows:

That, effective on the date of this order, the following rules and regulations shall apply to wells hereafter drilled or completed or re-completed to the Mesaverde Pool in the Blanco area, defined below, in addition to the Commission's applicable rules, regulations and orders heretofore or hereafter adopted to the extent not to conflict herewith:

Section 1. No well shall be drilled or completed or re-completed and no Notice of Intention to Drill or Drilling Permit shall be approved, unless,

(a) Such well be located on a designated drilling unit of not less than

three hundred twenty (320) acres of land, more or less, according to legal subdivision of the United States Land Surveys, in which unit all the interests are consolidated by pooling agreement or otherwise and on which no other well is completed, or approved for completion, in the pool;

(b) Such drilling unit be in the shape of a rectangle except for normal variations in legal subdivisions of the United States Land Surveys, the north half, south half, east half or west half of each section of land constituting a drilling unit;

(c) Such well shall be located 330 feet from the center of either the northeast or southwest quarter of the section, subject to variation of 200 feet for topographic conditions. Further tolerance shall be allowed by the Commission only in cases of extremely rough terrain where compliance would necessarily increase drilling costs.

Section 2. The special rules and regulations for the Blanco (Mesaverde) Pool contained herein shall be limited in their application to the present 4200-5100 foot productive horizon where the productive sands are contained between the top of the Cliff House Sand and the base of the Point Lookout Sand of the Mesaverde.

Section 3. Proration Units: The proration unit shall consist of 320 acres or (a) a legal United States General Land Office Survey half-section and (b) the approximate 320 acre unit shall follow the usual legal subdivision of the General Land Office Section Surveys and (c) where proration units lie along the edge of field boundaries described in Section 1 above, exceptions shall be permissible in that contiguous tracts of approximately 320 acres, following regular United States General Land Office subdivisions may be classed as proration units.

(a) The pooling of properties or parts thereof shall be permitted, and if not agreed upon may be required in any case when and to the extent that the smallness or shape of a separately owned tract would, under the enforcement of the uniform spacing plan of proration units, otherwise deprive or tend to deprive the owner of such tract of the opportunity to recover his just and equitable share of the crude petroleum oil and natural gas in the pool; provided, that the owner of any tract that is smaller than the drilling unit established for the field, shall not be deprived of the right to drill on and produce from such tract if same can be done without waste; but in such case the allowable production from such tract, as compared with the allowable production therefrom if such tract were a full unit, shall be in the ratio of the area of such tract to the area of a full unit of 320 acres.

Section 4. Casing and Cementing Program:

A. Surface Pipe:

The surface pipe shall be set to a minimum depth of 100 feet, and where shallow potable water-bearing beds are present, the surface pipe shall be set to such shallow potable water-bearing beds and a sufficient amount of cement shall be used to circulate the cement behind the pipe to the bottom of the cellar. This surface casing shall stand cemented for at least 24 hours before drilling plug or initiating tests. The surface casing shall be tested after drilling plug by bailing the hole dry. The hole shall remain dry for one hour to constitute satisfactory proof of a water shut-off. In lieu of the foregoing test the cement job shall be tested by building up a pressure of 1,000 psi, closing the valves, and allowing to stand thirty minutes. If the pressure does not drop more than 100 pounds during that period, the test shall be considered satisfactory. This test shall be made both before and after drilling the plug. In this regard all fresh waters and waters of present or probable future value for domestic, commercial or stock purposes shall be confined to their respective strata and shall be adequately protected by methods approved by the Commission. Special precaution shall be taken in drilling and abandoning wells to guard against any loss of artesian potable water from the strata in which it occurs and the contamination of artesian potable water by objectionable water, oil or gas. The Commission shall be notified at least 24 hours prior to the conducting of any test.

B. Production String:

The production string shall be set on top of the Cliff House Sand with a minimum of 100 sacks of cement and shall stand cemented not less than 36 hours before testing the casing. This test shall be made by building up a pressure of 1,000 psi, closing the valves, and allowing to stand thirty minutes. If the pressure does not drop more than 100 pounds during that period, the test shall be considered satisfactory.

C. General:

All cementing shall be done by the pump and plug method. Bailing tests may be used on all casing and cement tests, and drill stem tests may be used on cement tests in lieu of pressure tests. In making bailing test, the well shall be bailed dry and remain approximately dry for thirty minutes. If any string of casing fails while being tested by pressure or by bailing tests herein required, it shall be re-cemented and re-tested or an additional string of casing should be run and cemented. If an additional string is used, the same test shall be made as outlined for the original string. In submitting Form C-101, "Notice of Intention to Drill", the number of sacks of cement to be used on each string of casing shall be stated.

D. Rules and Regulations of the Commission relating to drilling, abandonment, production shall be applicable.

Section 5. Tubing:

Any completed well which produces any oil shall be tubed. This tubing shall be set as near the bottom of the hole as practicable, but in no case shall tubing perforations be more than 250 feet from the bottom. The bottom of the tubing shall be restricted to an opening of less than 1 inch or bull-plugged in order to prevent the loss of pressure bombs or other measuring devices.

Section 6. Special Equipment:

Any well which produces oil shall be equipped with a meter setting of adequate size to measure efficiently the gas, with this meter setting to be installed on the gas vent or discharge line. Wellhead equipment for all wells shall be installed and maintained in first class condition, so that static, bottom hole pressures and surface pressures may be obtained at any time by a duly authorized agent of the Commission. Valves shall be installed so that pressures may be readily obtained on the casing and also on the tubing, wherever tubing is installed. All connections subject to well pressure and all wellhead fittings shall be of first class material, rated at 2,000 psi working pressure and maintained in gas-tight condition. Bradenheads rated at 2,000 psi shall be installed on all production string and bradenhead connections maintained in gas-tight condition. There shall be at least one valve on each bradenhead. Operators shall be responsible for maintaining all equipment in first class condition and shall repair or replace equipment where gas leakage occurs.

Section 7. Safety Requirements:

Drilling boilers shall not be set closer than 200 feet to any well or tank battery. All electrical equipment shall be in first class condition and properly installed.

Section 8. Shooting of Wells:

Wells shall not be shot or chemically treated until the permission of the Commission is obtained. Each well shall be shot or treated in such manner as will not cause injury to the sand or result in water entering the oil or gas sand, and necessary precautions shall be taken to prevent injury to the casing. If shooting or chemical treatment results in irreparable injury to the well or to the oil or gas sand, the well shall be properly plugged and abandoned. (See Rule 42, Order Number 4, Effective 8-12-35.)

Section 9. Testing of Pays:

All wells drilled through the Point Lookout Pay will be tested by means of separate back pressure tests in accordance with the methods adopted by the

United States Bureau of Mines (Monograph 7) of (a) the Cliff House Pay (b) the Point Lookout Pay (c) both pays commingled with a minimum of three stabilized readings from a total minimum of three different sized orifices.

A. Wells which penetrate the Cliff House Pay only will take minimum of three stabilized tests covering a total of three different sized orifices.

B. The foregoing tests shall be taken either in the process of completion, or in drilling, or by means of packer separations between the Point Lookout and Cliff House Pays after completion. All tests should be certified and filed with the Commission, and the Commission shall be notified at least 24 hours prior to conducting any test.

C. Annual back pressure tests, using total of three different sized orifices, shall be taken in June, July or August on each completed well. Each test must be stabilized and plotted as a straight line function on logarithmic paper as outlined in United States Bureau of Mines Monograph Number 7.

D. Within six months of the effective date of this order, and every six months thereafter, there shall be a meeting of all operators within the Blanco-Mesaverde pool in the Commission Offices in Santa Fe, New Mexico, to present and discuss new information and data gathered subsequent to the effective date of this order. The Commission may discontinue these meetings when in its opinion, the pool has reached a stage of development where such meetings are unnecessary.

Section 10. Protection of Mineral Deposits:

Since the Menefee coal beds bear some gas and since these coal beds are of non-commercial value, Rule 20, Order Number 4 of the Commission dated August 12, 1935, shall not apply to this field.

Section 11. Gas Wastage:

Mesaverde gas shall not be flared since this is principally a gas reservoir and any well not connected to a commercial or domestic taker shall be shut-in until such market is obtained. Wells in this field shall be permitted to produce and market gas, as long as such can be done without waste, equitably between proration units for the field.

Section 12. Bradenhead Gas:

Bradenhead gas shall not be used either directly or expansively in engines, pumps or torches, or otherwise wasted. It may be used for lease and development purposes and - for the development of nearby leases, except as prohibited above. Wells shall not be completed as Bradenhead gas wells unless special permission is obtained from the Commission.

Section 13. Any provision herein to the contrary notwithstanding, the Commission may, and in proper cases will, on petition or on its own motion, by order entered after notice and hearing to the extent required by law, grant exceptions and permit drilling locations to become effective, thereby authorizing the drilling or completion of wells in the pool not conforming to the requirements of Sections 1 through 12 above if the Commission shall find that the property sought to be drilled would be deprived of an opportunity to produce gas from the pool in the absence of such exception, or irrespective of such findings, if the Commission shall find that by reason of all circumstances an exception is proper in the prevention of waste, or undue drainage between properties, or otherwise in the exercise by the Commission of its jurisdiction over the spacing of wells or its order powers conferred by law express or implied.

Section 14. All additional lands located within one mile of any land in the pool as defined above or as it may be extended shall conform to these rules and regulations; provided, however, that by order of this Commission the pool may be redesignated from time to time so as to embrace other lands in the vicinity which are believed on the basis of add-

itional developments, to be capable of producing gas from the Mesaverde formation, whether or not such other lands shall have been at one time included in another designated field or pool producing from Mesaverde.

IT IS FURTHER ORDERED, That the Commission retain jurisdiction of this case for such other and further order or orders in the premises as may become necessary in order to make spacing and other adjustments and to protect correlative rights and further prevention of waste.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

Edwin L. Mechem
EDWIN L. MECHEM, Chairman

Guy Shepard
GUY SHEPARD, Member

R. R. Spurrer
R. R. SPURRER, Secretary

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Before the O.C.C.
of the State of N. M.

In the matter of the Hearing
called by the Oil Conservation
Commission of New Mexico for
the purpose of considering:

Case No. 317
Order No. R

The application of the O.C.C.
of New Mexico upon its own
motion for an order amending
order No. 799 relating to the
Blanco Pool, San Juan County,
N. M., specifically including
Sec. 4-A - Casing and Cementing
Program, and other matters.

Order of the Commission

By the Commission -

This matter came on regularly for hearing on October
23, 1951, at 10 a.m. at Santa Fe, New Mexico, before the
Oil Conservation Commission of New Mexico, hereinafter
called the "Commission."

Now, on this day of October, 1951, the Commission,
a quorum being present, having considered the testimony
adduced and testimony received at said hearing, 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 case, of all interested parties,
and the subject matter thereof.

(2) That this matter originally came up for
hearing on petition of the Blanco Gas Company for an
exception to Section 4-A of order 799, Blanco Pool Casing
Requirements, San Juan County, in Case No. 283, which
Case No. 283 was dismissed by Commission order No. R-90.

~~This matter originally
came up on petition
of Blanco Gas Co.
for exception, etc.~~

(3) That evidence submitted and testimony received
in Case No. 283 tended to show modification of order no.
799 is advisable and necessary

(4)

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. 283
ORDER NO. R-90

THE APPLICATION OF THE BLANCO
GAS COMPANY FOR A SPECIAL EXCEPTION
TO SECTION 4 A OF ORDER 799 (BLANCO
POOL CASING REQUIREMENTS, SAN JUAN
COUNTY).

ORDER OF THE COMMISSION

BY THE COMMISSION:

This matter came on regularly for hearing on ~~June 21~~^{July 24}, 1951,
and for further hearing on ~~July 24~~^{August 1}, 1951, at Santa Fe, New Mexico, before
the Oil Conservation Commission of New Mexico, hereinafter called the
"Commission".

NOW, on this ~~20~~²⁴ day of September, 1951, the Commission, a
quorum being present, considered the testimony adduced and statements
made at both the ~~June 21~~^{July 24} and ~~July 24~~^{August 1}, 1951, hearings 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, of all interested
parties, and the subject matter thereof.

(4) ~~(3)~~ That Order No. 799 relating to the Blanco Pool,
in San Juan County, New Mexico, should be amended to provide for the
orderly development of the pool as defined and described in Order No. R89
issued in Case No. 291 and designated as the Blanco (Mesaverde) pool,
and as the pool may hereafter be changed or extended, for the purpose of
promoting conservation and preventing waste, ~~and as amended herein, by the~~
~~special Pool rules of the Blanco (Mesaverde) pool as described in Order No. R-89.~~

IT IS THEREFORE ORDERED:

(1) That Order No. 799, being the Blanco Pool special rules,
as hereinafter amended shall be the rules of the Blanco (Mesaverde) pool,
as said Pool is more fully defined and described in Commission Order No. R-89,
and as said Pool may hereafter be changed, reduced or extended.
(2) That Order No. 799 be, and the same hereby is amended
as follows:

That, effective on the date of this order, the following rules
and regulations shall apply to wells hereafter drilled or completed or
re-completed to the Mesaverde pool in the Blanco area, defined below,
in addition to the Commission's applicable rules, regulations and orders
heretofore or hereafter adopted to the extent not to conflict herewith:

Section 1. No well shall be drilled or completed or recompleted
and no Notice of Intention to Drill or drilling permit shall be approved,
unless,

10-10-51

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. 283
ORDER NO. R-90

THE APPLICATION OF THE BLANCO
GAS COMPANY FOR A SPECIAL EXCEPTION
TO SECTION 4 A OF ORDER 799 (BLANCO
POOL CASING REQUIREMENTS, SAN JUAN
COUNTY).

ORDER OF THE COMMISSION

BY THE COMMISSION:

This matter came on regularly for hearing on June 21, 1951, and for further hearing on July 24, 1951, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter called the "Commission".

NOW, on this 20th day of September, 1951, the Commission, a quorum being present, considered the testimony adduced and statements made at both the June 21 and July 24, 1951, hearings 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, of all interested parties, and the subject matter thereof.

(2) That Order No. 799 relating to the Blanco Pool, in San Juan County, New Mexico, should be amended to provide for the orderly development of the pool as defined and described in Order No. R89 issued in Case No. 291 and designated as the Blanco (Mesaverde) pool, and as the pool may hereafter be changed or extended, for the purpose of promoting conservation and preventing waste.

IT IS THEREFORE ORDERED:

(1) That Order No. 799, being the Blanco Pool special rules, as hereinafter amended shall be the rules of the Blanco (Mesaverde) pool.

(2) That Order No. 799 be, and the same hereby is amended as follows:

That, effective on the date of this order, the following rules and regulations shall apply to wells hereafter drilled or completed or re-completed to the Mesaverde pool in the Blanco area, defined below, in addition to the Commission's applicable rules, regulations and orders heretofore or hereafter adopted to the extent not to conflict herewith.

Section 1. No well shall be drilled or completed or recompleted and no Notice of Intention to Drill or drilling permit shall be approved, unless,

(a) Such well be located on a designated drilling unit of not less than three hundred twenty (320) acres of land, more or less, according to legal subdivisions of the United States Land Surveys, in which unit all the interests are consolidated by pooling agreement or otherwise and on which no other well is completed, or approved for completion, in the pool;

(b) Such drilling unit be in the shape of a rectangle except for normal variations in legal subdivisions of the United States Land Surveys, the north half, south half, east half or west half of each section of land constituting a drilling unit;

(c) Such well shall be located 330 feet from the center of either the northeast or southwest quarter of the section, subject to variation of 200 feet for topographic conditions. Further tolerance shall be allowed by the Commission only in cases of extremely rough terrain where compliance would necessarily increase drilling costs.

Section 2. The special rules and regulations for the Blanco (Mesa-verde) pool contained herein shall be limited in their application to the present 4200-5100 foot productive horizon where the productive sands are contained between the top of the Cliff House Sand and the base of the Point Lookout Sand of the Mesaverde.

Section 3. Proration Units: The proration unit shall consist of 320 acres or (a) a legal U. S. General Land Office Survey half-section and (b) the approximate 320 acre unit shall follow the usual legal subdivisions of the General Land Office Section Surveys and (c) where proration units lie along the edge of field boundaries described in Section 1 above, exceptions shall be permissible in that contiguous tracts of approximately 320 acres, following regular U. S. G. L. O. subdivisions may be classed as proration units.

A. The pooling of properties or parts thereof shall be permitted, and if not agreed upon may be required in any case when and to the extent that the smallness or shape of a separately owned tract would, under the enforcement of the uniform spacing plan of proration units, otherwise deprive or tend to deprive the owner of such tract of the opportunity to recover his just and equitable share of the crude petroleum oil and natural gas in the pool; provided, that the owner of any tract that is smaller than the drilling unit established for the field, shall not be deprived of the right to drill on and produce from such tract if same can be done without waste; but in such case the allowable production from such tract, as compared with the allowable production therefrom if such tract were a full unit, shall be in the ratio of the area of such tract to the area of a full unit of 320 acres.

Section 4. Casing and Cementing Program:

A. Surface Pipe:

The surface pipe shall be set to a minimum depth of 100 feet, and where shallow potable water-bearing beds are present, the surface pipe shall be set to such shallow potable water-bearing beds and a sufficient amount of cement shall be used to circulate the cement behind the pipe to the bottom of the cellar. This surface casing shall stand cemented for at

24 hours before drilling plug or initiating tests. The surface casing shall be tested after drilling plug by bailing the hole dry. The hole shall remain dry for one hour to constitute satisfactory proof of a water-shut-off. In lieu of the foregoing test the cement job shall be tested by building up a pressure of 1,000 psi, closing the valves, and allowing to stand thirty minutes. If the pressure does not drop more than 100 lbs. during that period, the test shall be considered satisfactory. This test shall be made both before and after drilling the plug. In this regard all fresh waters and waters of present or probable future value for domestic, commercial or stock purposes shall be confined to their respective strata and shall be adequately protected by methods approved by the Commission. Special precaution shall be taken in drilling and abandoning wells to guard against any loss of artesian potable water from the strata in which it occurs and the contamination of artesian potable water by objectionable water, oil or gas. The Commission shall be notified at least 24 hours prior to the conducting of any test.

B. Production String:

The production string shall be set on top of the Cliff House Sand with a minimum of 100 sacks of cement and shall stand cemented not less than 36 hours before testing the casing. This test shall be made by building up a pressure of 1,000 psi, closing the valves, and allowing to stand thirty minutes. If the pressure does not drop more than 100 lbs. during that period, the test shall be considered satisfactory.

C. General:

All cementing shall be done by the pump and plug method. Bailing tests may be used on all casing and cement tests, and drill stem tests may be used on cement tests in lieu of pressure tests. In making bailing test, the well shall be bailed dry and remain approximately dry for thirty minutes. If any string of casing fails while being tested by pressure or by bailing tests herein required, it shall be re-cemented and re-tested or an additional string of casing should be run and cemented. If an additional string is used, the same test shall be made as outlined for the original string. In submitting Form C-101, "Notice of Intention to Drill," the number of sacks of cement to be used on each string of casing shall be stated.

D. Rules and Regulations of the Commission relating to drilling, abandonment, production shall be applicable.

Section 5. Tubing: Any completed well which produces any oil shall be tubed. This tubing shall be set as near the bottom of the hole as practicable, but in no case shall tubing perforations be more than 250 feet from the bottom. The bottom of the tubing shall be restricted to an opening of less than 1 inch or bull-plugged in order to prevent the loss of pressure bombs or other measuring devices.

Section 6. Special Equipment: Any well which produces oil shall be equipped with a meter setting of adequate size to measure efficiently the gas, with this meter setting to be installed on the gas vent or discharge line. Wellhead equipment for all wells shall be installed and maintained in first class condition, so that static, bottom hole pressures and surface pressures may be obtained at any time by a duly authorized agent of the Commission. Valves shall be installed so that pressures may be readily obtained on the casing and also on the tubing, wherever tubing is installed. All connections subject to well pressure and all wellhead fittings

shall be of first class material, rated at 2,000 psi working pressure and maintained in gas-tight condition. Bradenheads rated at 2,000 psi shall be installed on all production string and bradenhead connections maintained in gas tight condition. There shall be at least one valve on each bradenhead. Operators shall be responsible for maintaining all equipment in first class condition and shall repair or replace equipment where gas leakage occurs.

Section 7. Safety Requirements: Drilling boilers shall not be set closer than 200 feet to any well or tank battery. All electrical equipment shall be in first class condition and properly installed.

Section 8. Shooting of Wells: Wells shall not be shot or chemically treated until the permission of the Commission is obtained. Each well shall be shot or treated in such manner as will not cause injury to the sand or result in water entering the oil or gas sand, and necessary precautions shall be taken to prevent injury to the casing. If shooting or chemical treatment results in irreparable injury to the well or to the oil or gas sand, the well shall be properly plugged and abandoned. (See Rule 42, Order No. 4, Effective 8-12-35.)

Section 9. Testing of Pays: All wells drilled through the Point Lookout Pay will be tested by means of separate back pressure tests in accordance with the methods adopted by the U. S. Bureau of Mines (Monograph 7) of (a) the Cliff House Pay (b) the Point Lookout Pay (c) both pays commingled with a minimum of three stabilized readings from a total minimum of three different sized orifices.

A. Wells which penetrate the Cliff House Pay only will take minimum of three stabilized tests covering a total of three different sized orifices.

B. The foregoing tests shall be taken either in the process of completion, or in drilling, or by means of packer separations between the Point Lookout and Cliff House Pays after completion. All tests should be certified and filed with the Commission, and the Commission shall be notified at least 24 hours prior to conducting any test.

C. Annual back pressure tests, using total of three different sized orifices, shall be taken in June, July or August on each completed well. Each test must be stabilized and plotted as a straight line function on logarithmic paper as outlined in U. S. Bureau of Mines Monograph No. 7.

D. Within six months of the effective date of this order, and every six months thereafter, there shall be a meeting of all operators within the Blanco-Mesaverde pool in the Commission Offices in Santa Fe, New Mexico, to present and discuss new information and data gathered subsequent to the effective date of this order. The Commission may discontinue these meetings when in its opinion, the pool has reached a stage of development where such meetings are unnecessary.

Section 10. Protection of Mineral Deposits: Since the Menefee coal beds bear some gas and since these coal beds are of non-commercial value, Rule 20, Order No. 4 of the Commission dated August 12, 1935 shall not apply to this field.

Section 11. Gas Wastage: Mesaverde gas shall not be flared since this is principally a gas reservoir and any well not connected to a commercial or domestic taker shall be shut-in until such market is obtained. Wells in this field shall be permitted to produce and market gas, as long as such can be done without waste, equitably between proration units for the field.

Section 12. Bradenhead Gas: Bradenhead gas shall not be used either directly or expansively in engines, pumps or torches, or otherwise wasted. It may be used for lease and development purposes and - for the development of nearby leases, except as prohibited above. Wells shall not be completed as Bradenhead gas wells unless special permission is obtained from the Commission.

Section 13. Any provision herein to the contrary notwithstanding, the Commission may, and in proper cases will, on petition or on its own motion, by order entered after notice and hearing to the extent required by law, grant exceptions and permit drilling locations to become effective, thereby authorizing the drilling or completion of wells in the pool not conforming to the requirements of Sections 1 through 12 above if the Commission shall find that the property sought to be drilled would be deprived of an opportunity to produce gas from the pool in the absence of such exception, or irrespective of such findings, if the Commission shall find that by reason of all circumstances an exception is proper in the prevention of waste, or undue drainage between properties, or otherwise in the exercise by the Commission of its jurisdiction over the spacing of wells or its order powers conferred by law express or implied.

Section 14. All additional lands located within one mile of any land in the pool as defined above or as it may be extended shall conform to these rules and regulations; provided, however, that by order of this Commission the pool may be redesignated from time to time so as to embrace other lands in the vicinity which are believed on the basis of additional developments, to be capable of producing gas from the Mesaverde formation, whether or not such other lands shall have been at one time included in another designated field or pool producing from Mesaverde.

IT IS FURTHER ORDERED, that the Commission retain jurisdiction of this case for such other and further order or orders in the premises as may become necessary in order to make spacing and other adjustments and to protect correlative rights and further prevention of waste.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

Edwin L. Mechem
EDWIN L. MECHEM, Chairman

Guy Shepard
GUY SHEPARD, Member

R. R. Spurrer
R. R. SPURRIER, Secretary

SEAL

Before the O.C.C.

State of N. M.

Santa Fe, New Mexico

In the matter of the hearing
called by the O.C.C.
of New Mexico for the purpose
of considering:

Case No. 283

Order No. ~~283~~

The application of the Blanco Gas
Company for a special exception
to section 4-A of Order 799 (Blanco
Pool Casing requirements, San Juan
County).

R-90

Order of the Commission

By the Commission:

This matter came on regularly for hearing on June 21,
1951, and for further hearing on July 24, 1951, at
Santa Fe, New Mexico, before the Oil Conservation
Commission of New Mexico, hereinafter called the
"Commission."

NOW, on this day of September, 1951, the
Commission, a quorum being present, considered
the testimony adduced and statements made at
both the June 21 and July 24, 1951, hearings 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 case, of all interested
parties, and the subject matter thereof.

(2) That order no. 799 relating to the Blanco Pool,
in San Juan County, New Mexico, should be amended
to provide for the orderly development of the pool

are defined and described in order no. 89 issued in
case no. 291 ^{and designated as the Blanco (meavverde) Pool,} and as the pool may hereinafter be
changed or extended, for the purpose of promoting
conservation and preventing waste.

It is, therefore, ordered:

(1) That order no. 799, being the Blanco
Pool special rules, as hereinafter amended
shall be the rules of the Blanco (meavverde)
Pool.

(2) That order no. 799 be, and the same
hereby is amended as follows:

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(2) That Order No. 799, ~~in case~~ being the Blanco
~~Pool special rules as herein~~ amended to conform to the purpose of this order, shall
be the rules of the Blanco (Mesaverde) pool as ^{created, classified and} hereinabove described, as
follows:

— That, effective on the date of this order, the following
rules and regulations shall apply to wells hereafter drilled or completed or
re-completed to the Mesaverde pool in the Blanco area, defined below, in
addition to the Commission's applicable rules, regulations and orders hereto-
fore or hereafter adopted to the extent not to conflict herewith:

Section 1. No well shall be drilled or completed or recompleted,
and no Notice of Intention to Drill or drilling permit shall be approved, unless,

(a) Such well be located on a designated drilling unit of not
less than three hundred twenty (320) acres of land, more or less, according
to legal subdivisions of the United States Land Surveys, in which unit all the
interests are consolidated by pooling agreement or otherwise and on which no
other well is completed, or approved for completion, in the pool;

(b) such drilling unit be in the shape of a rectangle except for
normal variations in legal subdivisions of the United States Land Surveys, the
north half, south half, east half or west half of each section of land constituting
a drilling unit;

(c) Such well shall be located 330 feet from the center of either
the northeast or southwest quarter of the section, subject to variation of 200
feet for topographic conditions. Further tolerance shall be allowed by the
Commission only in cases of extremely rough terrain where compliance

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would necessarily increase drilling costs.

Section 2. The special rules and regulations for the Blanco (Mesaverde) pool contained herein shall be limited in their application to the present 4200-5100 foot productive horizon where the productive sands are contained between the top of the Cliff House Sand and the base of the Point Lookout Sand of the Mesaverde.

Section 3. Proration Units: The proration unit shall consist of 320 acres or (a) a legal U. S. General Land Office Survey half-section and (b) the approximate 320 acre unit shall follow the usual legal subdivisions of the General Land Office Section Surveys and (c) where proration units lie along the edge of field boundaries described in Section 1 above, exceptions shall be permissible in that contiguous tracts of approximately 320 acres, following regular U.S.G.L.O. subdivisions, may be classed as proration units.

A. The pooling of properties or parts thereof shall be permitted, and if not agreed upon may be required in any case when and to the extent that the smallness or shape of a separately owned tract would, under the enforcement of the uniform spacing plan of proration units, otherwise deprive or tend to deprive the owner of such tract of the opportunity to recover his just and equitable share of the crude petroleum oil and natural gas in the pool; provided, that the owner of any tract that is smaller than the drilling unit established for the field, shall not be deprived of the right to drill on and produce from such tract if same can be done without waste; but in such case the allowable production from such tract, as compared with the allowable production therefrom if such tract were a full unit, shall be in the ratio of

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The surface pipe shall be set to a minimum depth of 100 feet, and where shallow potable water-bearing beds are present, the surface pipe shall be set to such shallow potable water-bearing beds and a sufficient amount of cement shall be used to circulate the cement behind the pipe to the bottom of the cellar.

shall be used to circulate the cement.

This surface casing shall stand cemented for at least 24 hours before drilling plug or initiating tests. The surface casing shall be tested after drilling plug by bailing the hole dry. The hole shall remain dry for one hour to constitute satisfactory proof of a water shut-off. In lieu of the foregoing test the cement job shall be tested by building up a pressure of 1,000 psi, closing the valves, and allowing to stand thirty minutes. If the pressure does not drop more than 100 lbs. during that period, the test shall be considered satisfactory. This test shall be made both before and after drilling the plug. In this regard all fresh waters and waters of present or probable future value for domestic, commercial or stock purposes shall be confined to their respective strata and shall be adequately protected by methods approved by the Commission. Special precaution shall be taken in drilling and abandoning wells to guard against any loss of artesian potable water from the strata in which it occurs and the contamination of artesian potable water by objectionable water, oil or gas. The Commission shall be notified at least 24 hours prior to the conducting of any test.

B. Production string /

The production string shall be set on top of the Cliff House Sand with a minimum of 100 sacks of cement and shall stand cemented not less than 36 hours before testing the casing. This test shall be made by building up a pressure of

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- 1,000 psi, closing the valves, and allowing to stand thirty minutes. If the pressure does not drop more than 100 lbs. during that period, the test shall be considered satisfactory.

C. General

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All cementing shall be done by the pump and plug method. Bailing tests may be used on all casing and cement tests, and drill stem tests may be used on cement tests in lieu of pressure tests. In making bailing test, the well shall be bailed dry and remain approximately dry for thirty minutes. If any string of casing fails while being tested by pressure or by bailing tests herein required, it shall be re-cemented and re-tested or an additional string of casing should be run and cemented. If an additional string is used, the same test shall be made as outlined for the original string. In submitting Form C-101, "Notice of Intention to Drill," the number of sacks of cement to be used on each string of casing shall be stated.

D. Rules and regulations of the Commission relating to drilling, abandonment, production shall be applicable.

Section 5. Tubing: Any completed well which produces any oil shall be tubed. This tubing shall be set as near the bottom of the hole as practicable, but in no case shall tubing perforations be more than 250 feet from the bottom. The bottom of the tubing shall be restricted to an opening of less than ^{inch} 1 or bull-plugged in order to prevent the loss of pressure bombs or other measuring devices.

Section 6. Special Equipment: Any well which produces oil shall be equipped with a meter setting of adequate size to measure efficiently the gas, with this meter setting to be installed on the gas vent or discharge line. Wellhead equipment for all wells shall be installed and maintained in first

class condition, so that static, bottom hole pressures and surface pressures may be obtained at any time by a duly authorized agent of the Commission. Valves shall be installed so that pressures may be readily obtained on the casing and also on the tubing, wherever tubing is installed. All connections subject to well pressure and all wellhead fittings ^{P 4} shall be of first class material, rated at 2,000 psi working pressure and maintained in gas-tight condition. Bradenheads rated at 2,000 psi shall be installed on all production string and bradenhead connections maintained in gas tight condition. There shall be at least one valve on each bradenhead. Operators shall be responsible for maintaining all equipment in first class condition and shall repair or replace equipment where gas leakage occurs.

Section 7. Safety Requirements: Drilling boilers shall not be set closer than 200 feet to any well or tank battery. All electrical equipment shall be in first class condition and properly installed.

Section 8. Shooting of Wells: Wells shall not be shot or chemically treated until the permission of the Commission is obtained. Each well shall be shot or treated in such manner as will not cause injury to the sand or result in water entering the oil or gas sand, and necessary precautions shall be taken to prevent injury to the casing. If shooting or chemical treatment results in irreparable injury to the well or to the oil or gas sand, the well shall be properly plugged and abandoned. (See Rule 42, Order No. 4, Effective 8-12-35.)

Section 9. Testing of Pays: All wells drilled through the Point Lookout Pay will be tested by means of separate back pressure tests in accordance with the methods adopted by the U. S. Bureau of Mines (Monograph 7) of (a) the Cliff House Pay (b) the Point Lookout Pay (c) both pays commingled with a minimum of three stabilized readings from a total minimum of three different sized orifices.

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A. Wells which penetrate the Cliff House Pay only will take minimum of three stabilized tests covering a total of three different sized orifices.

B. The forgoing tests shall be taken either in the process of completion, or in drilling, or by means of packer separations between the Point Lookout and Cliff House Pays after completion. All tests should be certified and filed with the Commission, and the Commission shall be notified at least 24 hours prior to conducting any test.

C. Annual back pressure tests, using total of three different sized orifices, shall be taken in June, July or August on each completed well. Each test must be stabilized and plotted as a straight line function on logarithmic paper as outlined in U. S. Bureau of Mines Monograph No. 7.

D. Within six months of the effective date of this order, and every six months thereafter, there shall be a meeting of all operators within the Blanco-Mesaverde pool in the Commission Offices in Santa Fe, New Mexico, to present and discuss new information and data gathered subsequent to the effective date of this order. The Commission may discontinue these meetings when in its opinion, the pool has reached a stage of development where such meetings are unnecessary.

Section 10. Protection of Mineral Deposits: Since the Menefee coal beds bear some gas and since these coal beds are of non-commercial value, Rule 20, Order No. 4 of the Commission dated August 12, 1935 shall not apply to this field.

85 — Section 11. Gas Wastage: Mesaverde gas shall not be flared since this is principally a gas reservoir and any well not connected to a commercial or domestic taker shall be shut-in until such market is obtained. Wells in this field shall be permitted to produce and market gas, as long as such can be done without waste, equitably between proration units for the field.

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Section 12. Bradenhead Gas: Bradenhead gas shall not be used either directly or expansively in engines, pumps or torches, or otherwise wasted. It may be used for lease and development purposes and for the development of nearby leases, except as prohibited above. Wells shall not be completed as Bradenhead gas wells unless special permission is obtained from the Commission.

Section 13. Any provision herein to the contrary notwithstanding, the Commission may, and in proper cases will, on petition or on its own motion, by order entered after notice and hearing to the extent required by law, grant exceptions and permit drilling locations to become effective, thereby authorizing the drilling or completion of wells in the pool not conforming to the requirements of Sections 1 through 12 above if the Commission shall find that the property sought to be drilled would be deprived of an opportunity to produce gas from the pool in the absence of such exception, or irrespective of such findings, if the Commission shall find that by reason of all circumstances an exception is proper in the prevention of waste, or undue drainage between properties, or otherwise in the exercise by the Commission of its jurisdiction over the spacing of wells or its order powers conferred by law express or implied.

Section 14. All additional lands located within ~~one mile~~ of any land in the pool as defined above or as it may be extended shall conform to these rules and regulations; provided, however, that by order of this Commission the pool may be redesignated from time to time so as to embrace other lands in the vicinity which are believed on the basis of additional developments, to be capable of producing gas from the Mesaverde formation, whether or not such other lands shall have been at one time included in another designated field or pool producing from Mesaverde.

~~Entered and adopted by the Oil Conservation Commission this 25 day of~~
~~February, 1949.~~

It is further ordered that the Commission
retain jurisdiction of this case for such other and
further order or orders in the premises as may
become necessary in order to make spacing and
other adjustments and to protect correlative rights
and further prevention of waste.

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

State of N. M.

O C C

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J. L.

R. P. S.