### BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE PETITION OF STANOLIND OIL AND GAS COMPANY FOR THE ADOPTION OF REGULATIONS ESTABLISHING UNIFORM SPACING IN THE BLANCO POOL IN SAN JUAN COUNTY, MEM MEXICO; ESTABLISHING THE LOCATION OF THE INITIAL WELL ON EACH 320 ACRES; FIXING REGULATIONS AS TO THE SETTING OF PIPE; AND FOR BACK PRESSURE TESTS OF THE VARIOUS STRATA.

CASE NO. 163 ORDER NO. 799

#### ORDER OF THE COMMISSION

#### BY THE COMMISSION:

WHEREAS, after due notice as required by law the Commission held a public hearing in Santa Fe on October 28, 1949, to consider the petition of Stanolind Oil and Gas Company for the adoption of an order fixing the spacing of wells and other field rules for wells hereafter drilled in the Blanco (Mesaverde) Gas Pool. San Juan County, New Mexico, and related matters; and

WHEREAS, the Commission having considered the evidence adduced at such hearing, pertinent information otherwise available in the Commission's records, the statements made and viewpoints expressed by interested parties at or in connection with such hearing,

FINDS, from the evidence adduced:

- A. That in order to eliminate waste of natural resources, protect correlative rights, protect potable water supplies, and encourage development in the Blanco (Mesaverde) Gas Pool, San Juan County, New Mexico;
- B. That such pool has produced natural gas from the Mesaverde formation for approximately 20 years, the entire gas production being from one well;
- C. That by reason of the undeveloped nature of the pool and of the general practices of certain operators, a fairly uniform spacing of one well to each 640 acres has heretofore prevailed throughout the pool;
- D. That in view of present evidence and development it is not economically feasible to drill more than two wells to each 640 acre section, and accordingly, that more dense spacing may be conducive to waste and will unnecessarily increase the cost of development and production.
- E. That for wells hereafter drilled, a general spacing pattern of one well on a unit of 320 acres, substantially in the shape of a rectangle, is required to protect the equities of those having interests in wells heretofore drilled on 320 or 640 acre tracts, for which general spacing pattern the pooling of properties should be encouraged when necessary;
- F. That gas production and the gas productive area of the pool is likely to be substantially more extensive than the presently developed position thereof;
- G. That waste, will result in drilling of wells in the pool, unless special rules and regulations are adopted for the prevention thereof;
- H. That all evidence indicates that the size, outline, trend and reservoir conditions of the pool is not exactly known, and substantial revision of all present data may become necessary as development proceeds, necessitating future revision of certain parts of this order;

I. That in view of the very incomplete knowledge of the pool, it is necessary to require all operators to make complete core analysis and other special tests of the Mesaverde formation until the pool is more completely developed; and J. That, while the Blanco-Mesaverde gas pool has been commercially productive for approximately 20 years, it has not heretofore been subject to cooperative action representative of the common interest of all operators or lease holders within the area, and there are an undetermined number of small landowners or lease-holders whose total holdings are either less than 320 acres or includes portions of 320 acre tracts. THEREFORE, IT IS ORDERED 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 in 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,

- (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 Lands 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 U. S. General Land Office Survey half-section and (b) the approximate 320 acre unit shall follow the usual legal sub-divisions 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. sub-divisions, 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 through the shallow potable water bearing beds to a minimum depth of 250 feet 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 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.

Rules 6, 8, 9, 10, 11, 12 and 14 of Order No. 4 of the Commission, effective 8/12/35, should be followed.

Section 5. <u>Tubing:</u> 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° 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. Well-Head 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 well-head 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. <u>Safety Requirements:</u> 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 treating 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 penetrated 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.
- O. 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 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. <u>Protection of Mineral Deposits</u>: 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 8/12/35 shall not apply to this field.

Section 11. <u>Gas Wastage</u>: 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. <u>Bradenhead Gas</u>: 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 Braden-

head 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 other powers conferred by law, express or implied.

IT IS FURTHER ORDERED that, in accordance with recommendations of the North-western New Mexico Nomenclature Committee approved and adopted by this Commission, the Mesaverde gas producing pool in the Blanco area, to which this order applies, is defined to include the following described land in San Juan County, New Mexico:

Township 29 North, Range 9 West
All of sections 3, 4, 5, 10, 11, 14 and 15.

Township 30 North, Range 9 West Sec. 7, S/2; Sec. 8, S/2; all of sections 16,17, 18, 19, 20, 21, 22, 27, 28, 29, 30, 32, 33 and 34.

All additional lands located within one-half (1/2) mile of any land in the pool as defined or as it may be extended shall conform to these rules and regulations; provided, however, that such pool shall in no event be extended so as to include any lands now or hereafter included by the Commission in some other producing area formally designated as an oil or gas pool in the Mesaverde, provided, further, 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 Blanco pool, 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.

STATE OF NEW MEXICO

OIL CONSERVATION COMMISSION

THOMAS J. MAURY, CHAIRMAN

GILY SHEPPED, MEMBER

R. R. SPURKIER, SECRETARY

### BEFURE THE CIL CORSERVATION COMESSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE PETITION OF STANCLIND CIL AND GAS COMPANY FOR THE ADOPTION OF REGULATIONS ESTABLISHING 640-ACRE SPACENG IN THE BLANCO FIELD IN SAN JUAN COUNTY, NEW MEXICO; ESTABLISHING THE LOCATION OF THE INITIAL WELL ON EACH 640 ACRES; FIXING REGULATIONS AS TO THE SETTING OF PIPE; AND FOR BACK PRESSURE TESTS OF THE VARIOUS STRATA.

CAUS NO. 163

#### CROKE CF THE COMMISSION

BY THE COMMISSION:

WHEREAS, after due notice as required by law the Commission held a public hearing in Santa Fe on October 28, 1948, to consider the petition of Stanolind Cil and Gas Company for the adeption of an order fixing the spacing of wells and other field rules for wells hereafter drilled in the Blance (Mesa Verde) Gas Field, San Juan County, New Mexico, and related matters; and

WHEREAS, the Commission having considered the evidence adduced at such hearing, pertinent information otherwise available in the Commission's records, the statements made and viewpoints expressed by interested parties at or in connection with such hearing,

FINDS, from the evidence adduced:

A. That in order to eliminate waste of natural resources, protect correlative rights, protect potable water supplies, and encourage development in the Blanco (Mesa Verde) Gas Field, San Juan County, New Mexico;

B. Stc.

THEREFORE, IT IS ORDERED that, effective on the date of this order, the following rules and regulations shall apply to wells hereafter drilled or completed or recompleted to the Mesa Verde Section in the Bianco (Mesa Verde) Gas Field, defined below, in addition to the Commission's applicable rules, regulations and orders heretofore or hereafter adopted to the extent not in conflict herewith;

1. The field limits are defined as follows: Starting at a point in the center of Section 2 T-30-N R-9-W NMPM easterly to the center of Section 4 T-30-N R-9-W; south to center of Section 9 T-30-N R-9-W; east to center of Section 10 T-30-N R-9-W; south to center of Section 15 T-30-N R-9-W; east to center of Section 24 T-30-N R-9-W; south to Section 23 T-30-N R-9-W; east to center of Section 24 T-30-N R-9-W; south to Section 36 T-30-N R-9-W; west to center of Section 31 T-30-N R-9-W; north to center of Section 30 T-29-N R-9-W; west to center of Section 27 T-29-N R-9-W; north to center of Section 9 T-29-N R-9-W; west to center of Section 8 T-29-N R-9-W; north to center of Section 5 T-29-N R-9-W; west to center of Section 6 T-29-N R-9-W; north to Section 31 T-30-N R-9-W; west to center of Section 6 T-29-N R-9-W; north to Section 31 T-30-N R-9-W; west to center of Section 26 T-30-N R-10-W; north to point of beginning embracing approximately 31,840 acres.

- 2. The special rules and regulations for the clanco (Mess More) Tield 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 couse cand and the base of the Point Lookout cand of the Mess Verde.
- Proration Units: The proration unit shall consist of 640 acres or (a) a legal U. J. General land Office Survey section and (b) the a proximate 640 acre unit shall follow the usual legal sub-divisions of the Caneral 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 640 acres, following regular C.S.G.L.O. sub-divisions, may be classed as proration units.
  - 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 promition units, otherwise deprive or tend to decrive 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 ostablished 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.
- 4. Spacing Location of Tells: Initially, each permit to drill shall be restricted to a location at the center of the TE/A of each section, based on the usual legal subdivisions of the U.J.G.L.O. surveys with a tolerance of 330 feet in any direction from the center of the quarter section.
  - A. When any well is to be drilled on a proration unit which is on an irregularly shaped tract and the unit borders the field limits as hereinbefore outlined, an alternate location may be chosen in the center of the DW/4 of the usual U.S.C.L.O. Survey sub-divisions with a 330 foot tolerance.

#### 5. Casing and Cementing Program:

A. Jurface Fipe

The surface pipe shall be set through the shallow potable mater bearing beds to a minimum depth of 250 feet and a sufficient arount of cement shall be used to circulate the cement behind the pipe to the bottom of the cellar. 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. This surface casing shall stand cemented for at least 24 hours before drilling plug or in lieu of the foregoing test. The cement job shall be tested by building up a pressure of 1,000 lbs., 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 abendoning 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.

3. Froduction String

The production string shall be set on top of the Cliff House and 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 loss not drop more than 100 lbs. during that period, the test shall be considered satisfactory.

d. Ceneral

ell cementing shall be done by the rump 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 rum and cemented. If an additional string is used the same test shall be made as outlined for the original string. In submitting Form G-101, "Notice of Intention to Drill", the number of sacks of cement to be used on each string of casing shall be stated.

Rules 6, 8, 9, 10, 11, 12 and 14 of Order No. 4 of the Commission, effective 8/12/35, should be followed.

- 6. 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° or bull-plugged in order to prevent the loss of pressure bombs or other measuring devices.
- 7. 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. The ell-Head 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 Consission. 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 well-head 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.
- 8. <u>lafety lecuirements: Drilling boilers shall not be set closer than 400 feet to any well or tank bettery.</u> All electrical e uipment shall be in first class condition and properly installed.

- 9. Shooting of hells: 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 treating results in irreparable injury to the well or to the oil or gas sand, the well shall be properly plugged and alandoned. (See sule 42 order to. 4, affective \$/12/35)
- 10. Testing of Fays: All wells drilled through the foint foogout Tay 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 Foint 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 penetrated 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 Fookout and Cliff House pays after completion. All tests should be certified and filed with the Commission.
  - 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 plot as a straight line function on logarithmic paper as outlined in U. 3. Bureau of lines Honograph 7.
- 11. Protection of Mineral Deposits: Since the Memeree coal bods bear some gas and since these coal beds are of non-commercial value, Rule 20, Order No. 4 of the Commission dated 8/12/35 shall not apply to this field.
- 12. Gas Wastage: Mesa Verde gas shall not be flured 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.
- 13. Bradenhead Gas: Bradenhead gas shall not be used either directly or expensively 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.

This or or shall become effective on the first day of the promation month next succeeding the month in which said order is adopted.

AND IT IS METHOR ORDEND: That this case remain open on the Locket for such further changes or corrections in the San Juen County rules as may present.

FORE at Santa Fe, New Mexico on the day and year hereinafter designated.

State of Mew Moxico
Mil Conservation Commission

Member Secretary De/Hi

## BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

CASE NO. 163 ORDER NO.

IN THE MATTER OF THE PETITION OF STANOLIND OIL AND GAS COMPANY FOR THE ADOPTION OF REGULATIO S ESTABLISHING 640-ACRE SPACING IN THE BLANCO FIELD IN SAN JUAN COUNTY, NEW MEXICO; ESTABLISHING THE LOCATION OF THE INITIAL WELL ON EACH 640 ACRES; FIXING REGULATIONS AS TO THE SETTING OF PIPE; AND FOR BACK PRESSURE TESTS OF THE VARIOUS STRATA.

#### ORDER OF THE COMMISSION

WHEREAS, after due notice as required by law the Commission held a public hearing in Santa Fe, New Mexico on October 28, 1948, to consider the petition of Stanolind Oil and Gas Company for the adoption of an order fixing the spacing of wells hereafter drilled in the Blanco Gas Field, San Juan County, New Mexico, and related matters; and,

WHEREAS, the Commission has received and considered the evidence adduced at such hearing, pertinent information otherwise available in the Commission's records, the statements made and viewpoints expressed by interested parties at or in connection with such hearing;

The Commission FINDS from the foregoing the following facts:

- 1. That the Blanco Gas Field is productive of natural gas from the Mesaverde formation.
- 2. That at the present time there is available to the Commission insufficient information to determine accurately the extent of the said field, the amount of gas reserves contained therein, and whether all wells drilled therein are located in the same gas pool.

- 3. That temporary uniform well spacing on units of 320 acres each would enable more rapid determination of the boundaries of the field than existing regulations, would encourage development of the field, would promote conservation of materials, equipment, gas and other hydrocarbon substances in the field, would enable greater ultimate gas recovery from the field, and would be fair and equitable to all interested parties.
- 4. That more dense well spacing in such field at the present time might be conducive to waste and might unnecessarily increase the costs of development and production.
- 5. That for wells hereafter drilled a general spacing pattern of one well on each unit of 320 acres should be encouraged, such wells to be located at or near the center of the Northeast and the Southwest quarters of each section of land according to the United States Land Surveys and such units conforming as nearly as possible to the North and South haives of the sections according to such Surveys.
- 6. That the gas productive area of the said pool is likely to be substantially more extensive than the presently developed portion thereof.
- 7. That waste will result in the drilling and operation of wells in the said field unless special rules and regulations are adopted for the prevention thereof.

THEREFORE, it is hereby ORDERED that effective on the date of this order the following rules and regulations shall apply to all wells which may be hereafter drilled, completed or recompleted to the Mesaverde formation in the Blanco Gas Field, defined below, in addition to the applicable rules, regulations and orders of the Commission heretofore or hereafter adopted to the extent not in conflict herewith:

Section 1. No well shall be drilled, 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 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 1/2 and the South 1/2 of each section of land constituting respectively a drilling unit; and
- (c) such well be located in the center of the Northeast 1/4 or the Southwest 1/4 of a section, as the case may be, such location to be subject to a 330 foot tolerance and a greater tolerance in the Commission's discretion in instances where necessary to reduce drilling costs because of rugged terrain.

Section 2. In connection with all wells covered by this order surface pipe shall be set through at least 50 feet of the first hard rock formation, circulated to the top with cement, and installed in such a manner as to insure adequate protection against blow-outs and cratering.

Section 3. In connection with all wells covered by this order, the production string shall be set on top of the Cliff House pay with a minimum of 100 sacks of cement, and tests shall be made under the existing regulations of the Commission.

Section 4. Annual back pressure tests shall be required to be taken in June, July or August for each completed

Section 5. Any provision herein to the contrary notwithstanding, the Commission may, on petition or on its own motion, by order entered after notice and hearing to the extent required by law, grant exceptions authorizing the drilling, completion or recompletion of wells covered by this order not conforming to Section 1 above if the Commission shall find that by reason of all circumstances such an exception is proper in the prevention of waste or otherwise in the exercise by the Commission of its jurisdiction over the spacing of wells or its other powers conferred by law, express or implied. The Commission may likewise under similar conditions and prerequisites grant exceptions to the requirements of Sections 2, 3 and 4 above.

Section 6. In accordance with the recommendations of the Northwest New Mexico Nomenclature Committee approved and adopted by this Commission, the Blanco Gas Field to which this ords: applies is defined to include and to be limited to the following described land in San Juan County, New Mexico:

#### (here insert description)

By order of the Commission the Blanco Gas Field may be redefined and re-designated from time to time so as to embrace other lands in the vicinity which are believed by the Commission on the basis of additional developments and evidence to be capable of producing gas from the same gas pool.

Section 7. The rules and regulations provided for herein are intended to be temporary only, any and all such regulations being subject to change at any time by the Commission on petition or on its own motion by order entered after notice and hearing to the extent required by law and after

additional information as to the reservoir characteristics may become available.

STATE OF NEW MEXICO OIL CONSERVATI N COMMISSION	
By Charlman	
Membe <b>r</b>	
Secretary	-

SIMMS, MODRALL, SEYMOUR & SIMMS
ATTORNEYS AT LAW
ALBUQUERQUE, NEW MEXICO

JAMES E. SPERLING JOSEPH E. ROEHL JOHN B. MC MANUS.JR.

JOHN F. SIMMS, JR.

JOHN F. SIMMS

J.R.MODRALL A.T. SEYMOUR

November 4, 1948

P. O. BOX 466



Oil Conservation Commission of N.M. 408 Galisteo Street Santa Fe, New Mexico

Attention Mr. R. R. Spurrier

Gentlemen:

We enclose herewith statement of Objection to Petition of Stanolind Oil and Gas Company in Case No. 163 which was heard before your Commission several days ago, and in which hearing we appeared on behalf of Brookhaven Oil Company.

We will appreciate your filing the Objection of our client in the record of this case, and having the same considered by the Commission when it considers the testimony and objections in connection with this hearing.

Very truly yours,

SIMYS, MODBALL, SEYMOUR & SIMMS

JRM/ch Enclosure

### BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE PETITION OF
STANOLIND OIL AND GAS COMPANY FOR THE
ADOPTION OF REGULATIONS ESTABLISHING CASE NO. 163
640-ACRE SPACING IN THE BLANCO FIELD
IN SAN JUAN COUNTY, NEW MEXICO:
ESTABLISHING THE LOCATION OF THE INITIAL
WELL ON EACH 640 ACRES: FIXING REGULATIONS
AS TO THE SETTING OR PIPE: AND FOR BACK
PRESSURE TESTS OF THE VARIOUS STRATA.

### OBJECTION TO PETITION OF STANOLIND OIL AND GAS COMPANY

BROOKHAVEN OIL COMPANY, a Delaware corporation authorized to do business in the State of New Mexico, by its President, Thomas B. Scott, Jr. and its attorneys, Simms, Modrall, Seymour & Simms of Albuquerque, New Mexico, hereby objects to the petition in the above matter and, as grounds for its objection, states:

- 1. That Brookhaven Oil Company, by and through its President and attorneys as above mentioned, appeared personally before the Commission upon its hearing on the above entitled case, and obtained permission of the Commission to file its written objection as herein set forth.
- 2. Brookhaven Oil Company is the owner of an oil and gas lease on land owned by the State of New Mexico and leased by the State to

Brookhaven Oil Company within the prospective area covered by the petition. The company also owns two leases on patented land of forty acres and twenty acres respectively, and further owns certain comparatively small mineral interests in the form of royalties on patented land within the prospective area, and is therefore an interested party which will be affected by any spacing order for the area designated as the Blanco area in San Juan County, New Mexico.

- 3. Brookhaven Oil Company is a small independent corporation having leases and royalties for oil and gas in Illinois, Indiana, Arkansas, Oklahoma, Texas, New Mexico, and Colorado. Its President Thomas B. Scott, Jr. has been in the oil and gas producing and pipe line business most of his adult business life.
- 4. The position of Brookhaven Oil Company in connection with the Petition of Stanolind Oil Company for a spacing program designating single drilling areas of 640 acres in the Blanco area, is that such a spacing order at this time is wholly unwarranted and may even prove harmful,
- (a) by reason of the fact that so little is known as to the productive characteristics of the proposed Blanco pool, as to make it impractical to set up any

specific spacing program at this time; and

- (b) that any spacing order for drilling attempted to be promulgated by the Commission at this time should be preceded first by a lease unitization program as to the entire area of the prospective Blanco field and second, by a minerals (royalty) unitization program on practical drilling units.
- It is believed by Brookhaven Oil 5. Company that any spacing program or order for drilling promulgated at the present time by the Commission, if such spacing area exceeds forty-acre tracts, will necessarily benefit the holders and owners of large blocks of leases and royalty in the proposed area to the detriment of the owners and holders of small tracts. In this connection, it is pointed out that the land owned by the State of New Mexico in this general area has been leased and is now held in comparatively small units, usually consisting of not more than a forty or eighty acre tract in one ownership. Since a spacing program without unitization and in excess of this size, would make it impossible, or at least impractical, for the holders of leases on such small units to drill them themselves, the State of New Mexico would be hindered and prejudiced in that its property would probably be the last area in the field

to be drilled and would be in substantial danger of considerable drainage by wells drilled upon the larger drilling units.

- 6. Brookhaven Oil Company, which is representative of the many holders and owners of small units in this general area, both on State land and patented private land, feels it is imperative for the protection of its interests and the interest of all small owners in the area, that lease and royalty unitization plans be worked out, submitted, and approved by the Commission before any spacing program is approved or ordered by the Commission. Once a lease unitization plan for the area has been worked out and approved, and then a royalty unitization plan has been worked out, the matter of spacing in this particular field can be ordered to fit the productive characteristics as the same become known.
- to the attention of the Commission the fact that two aspects of production within the prospective area are to be considered; first, the problem dealing with the holders of leases on all types of land in the area; and secondly, the problem dealing with the holders of mineral royalty interests on the patented lands. It is our position that these two interests must be dealt with separately and that it will be necessary to first unitize the holders of oil and gas lease interests, and after this is done, then to work out some unitization program which will include the holders of royalty interests in whatever size unit is deemed practical.

- 8. We call the Commission's attention to the practice of the State of New Mexico in leasing its State lands in small tracts, usually in forty and eighty acres, and also the provision in the existing state leases calling for offset to be drilled if a producing well is located three hundred feet of leased border, contained in provision No. 8 of the standard oil and gas lease issued by the State. The proposed action of establishing 640 acre spacing may result in a situation where there would be no offset obligation required unless drainage could be proved. If this condition resulted, it is obvious that it would be to the irreparable detriment of the State of New Mexico.
- 9. We further point out that in many cases the owners and holders of small State leases to be contained in a large spacing unit such as that proposed by Stanolind Oil Company, are scattered throughout the United States, and it would be an impractical proposition for an owner of small acreage such as Brookhaven Oil Company, to have the burden of financing and working out a drilling agreement with all of these numerous small operators, if a drilling unit of considerable area is established prior to some action of the operators of the field or the Commission itself in unitizing the entire area before establishing a drilling pattern.

Company does not advocate at this time any particular spacing plan for drilling until such time as engineering data warrants sound conclusions, it is opposed to an arbitrary 640 acre spacing for drilling without lease and royalty unitization as described above, because we know that it is impractical under such a wide spacing for the small owner to operate and receive his just share of recovery.

Respectfully submitted,

BROOKHAVEN OIL COMPANY

By Thorsteent President

SIMMS MODRALL, SEYMOUR & SIMMS

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Its Attorneys

# BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE PETITION OF STANOLIND OIL AND GAS COMPANY FOR THE ADOPTION OF REGULATIONS ESTABLISHING 640-ACRE SPACING IN THE BLANCO FIELD IN SAN JUAN COUNTY, NEW MEXICO; ESTABLISHING THE LOCATION OF THE INITIAL WELL ON EACH 640 ACRES; FIXING REGULATIONS AS TO THE SETTING OF PIPE; AND FOR BACK PRESSURE TESTS OF THE VARIOUS STRATA.

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#### PETITION

Comes now the Stanolind Oil and Gas Company, and respectfully requests:

That this Commission adopt regulations governing the Blanco Field, in San Juan County, New Mexico, as follows:

- 1. That a 640-acre spacing program be adopted, with the initial well within 660 feet of the centre of the Northeast Quarter of each Section until field limits are defined, and other regulations adopted as further development of the field may require.
- 2. Surface pipe be set through the shallow water beds, and be not less than 250 feet, with cement circulating to the surface.
- 3. That the production string be set on top of the cliff house pay, with a minimum of 100 sacks of cement, and that tests be made under the existing regulations of the Commission.
- 4. That all wells drilled through the point lookout pay be required to take separate back pressure tests of (a) the cliff house pay, (b) the point lookout pay, and (c) both pays commingled, with a minimum of three points to each back pressure test. That wells in the cliff house pay be required to take back pressure test, obtaining a minimum of three points, and that all tests be taken either in the process of completion, or by means of packer separation between the point lookout and cliff house pays after after completion, and that all tests be certified and filed with this Commission.

5. That annual back pressure tests be required, to be taken in June, July or August, for each completed well.

Petitioner believes that the foregoing rules will promote the conservation of gas and other hydrocarbon substances in the field, and will result in a greater ultimate recovery from the field, and will be fair to all interested parties, including the royalty owners.

Petitioner requests that this Petition be set down for hearing at an early date at the convenience of the Commission.

STANOLIND OIL AND GAS COMPANY

by A.J.

Its Attorney.

STATE OF NEW MEXICO )
COUNTY OF SANTA FE

J. O. Seth, being first duly sworn, deposes and says that he is attorney for the Petitioner in the foregoing Petition; that he has read said Petition, knows the contents thereof, and the matters and things therein stated are true, as he is reliably informed and verily believes.

Subscribed and sworn to before me this 12th day of October, 1948.

Notary Public.

My Commission Expires:

October 10th, 1951