

CAMPBELL, CARR, BERGE
& SHERIDAN, P.A.
LAWYERS

MICHAEL B. CAMPBELL
WILLIAM F. CARR
BRADFORD C. BERGE
MARK F. SHERIDAN

MICHAEL H. FELDEWERT
TANYA M. TRUJILLO

JACK M. CAMPBELL
OF COUNSEL

JEFFERSON PLACE
SUITE 1 - 110 NORTH GUADALUPE
POST OFFICE BOX 2208
SANTA FE, NEW MEXICO 87504-2208
TELEPHONE: (505) 988-4421
TELECOPIER: (505) 983-6043

October 10, 1994

William J. LeMay, Director
Oil Conservation Commission
310 Old Santa Fe Trail, Room 219
Santa Fe, New Mexico 87503

HAND-DELIVERED

11/1994

Ms Jami Bailey
State Land Commissioner's Office
State Land Office Building
310 Old Santa Fe Trail
Santa Fe, New Mexico 87501

HAND-DELIVERED

Mr. William Weiss
New Mexico Petroleum Recovery
Research Center
New Mexico Tech Campus
Socorro, New Mexico 87801

VIA FIRST CLASS MAIL

Re: Oil Conservation Commission Case No. 11014 (De Novo):
Application of Phillips Petroleum Company for a Horizontal/High Angle
Directional Drilling pilot Project, Special Operating Rules Therefor, a Non-
Standard Oil Proration Unit, an Unorthodox Oil Well Location and Special Project
Oil Allowable and Production Testing Period, Eddy County, New Mexico

Gentlemen and Ms Bailey:

On behalf of Bass Production Company, please find enclosed for your review, our proposed
Order in the above-referenced case.

If you require anything further from us for your consideration of this matter, please advise.

Very truly yours,



WILLIAM F. CARR

WFC:mlh

Enc.

cc: Mr. J. Wayne Bailey
W. Thomas Kellahin

KELLAHIN AND KELLAHIN

ATTORNEYS AT LAW

EL PATIO BUILDING

117 NORTH GUADALUPE

POST OFFICE BOX 2265

SANTA FE, NEW MEXICO 87504-2265

TELEPHONE (505) 982-4285

TELEFAX (505) 982-2047

W. THOMAS KELLAHIN*

*NEW MEXICO BOARD OF LEGAL SPECIALIZATION
RECOGNIZED SPECIALIST IN THE AREA OF
NATURAL RESOURCES-OIL AND GAS LAW

JASON KELLAHIN (RETIRED 1991)

October 14, 1994

HAND DELIVERED

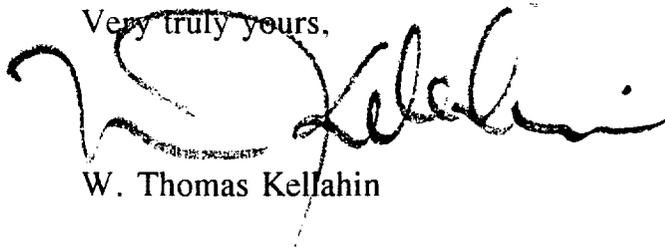
Mr. William J. LeMay
Chairman
Oil Conservation Commission
310 Old Santa Fe Trail
Santa Fe, New Mexico 87501

Re: NMOCD CASE 11014 (DeNovo)
Application of Phillips Petroleum
Company for a High Angle/Horizontal/
Directional Drilling Pilot Project,
Eddy County, New Mexico

Dear Mr. LeMay:

On behalf of Phillips Petroleum Company, please find enclosed our
proposed order for consideration by the Commission.

Very truly yours,



W. Thomas Kellahin

cc: Commissioner Bill Weiss
cc: Commissioner Jamie Bailey
cc: William F. Carr, Esq.
cc: Phillips Petroleum Company (Ken Schramko)

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION COMMISSION

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

CASE NO. 11014 (DeNovo)
Order R-10158-A

APPLICATION OF PHILLIPS PETROLEUM COMPANY
FOR A HIGH ANGLE/HORIZONTAL/DIRECTIONAL
DRILLING PILOT PROJECT, SPECIAL OPERATING
RULES THEREFOR, INCLUDING A NON-STANDARD OIL
SPACING & PRORATION UNIT, AN UNORTHODOX OIL
WELL LOCATION, AND A SPECIAL PROJECT ALLOWABLE
AND TESTING PERIOD, EDDY COUNTY, NEW MEXICO

PHILLIPS PETROLEUM COMPANY'S
PROPOSED
ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9:00 AM on September 22, 1994, at Santa Fe, New Mexico before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this ___ day of October, 1994, the Commission, a quorum being present, having considered the testimony presented and exhibits received at said hearing, and being fully advised in the premises,

FINDS THAT:

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

(2) The applicant, Phillips Petroleum Company ("Phillips"), seeks authority for a high angle/horizontal/directional drilling pilot project and special operating rules therefor including a 120-acre non-standard oil spacing and proration unit, an unorthodox oil well location, a special project allowable and testing period, Eddy County, New Mexico. Applicant seeks to initiate a horizontal drilling project in the Cherry Canyon member of the Cabin Lake-Delaware Oil Pool, underlying the SE/4SW/4 and the S/2SE/4 of Section 11, T22S, R30E, NMPM.

(3) At the Division Examiner hearing held on July 7, 1994, Phillips requested:

a) authority to drill its James E Well No. 9 Well by commencing at an unorthodox oil well surface location 10 feet FEL and 1060 feet FSL (Unit P) of Section 11, then kicking-off from vertical in a west-southwesterly direction commencing to build angle at a rate of 12 degrees per 100 feet to approximately 87 degrees and then horizontally to traverse the proposed producing area and terminate in Unit N of Section 11;

b) the adoption of special operating provisions and rules within the project area including the designation of a target window such that the horizontal or producing portion of the wellbore shall be no closer than 330 feet to any boundary of a non-standard spacing and proration unit consisting of the SE/4SW/4 and S/2SE/4 (Units N, O and P) of said Section 11;

c) a Special Daily Project Allowable for the subject well equal to 561 BOPD, being based the current depth bracket oil allowable of 187 BOPD times the number of 40-acre tracts contacted by the producing lateral of the wellbore as determined from directional surveys; and

b) to establish a special production testing period of twelve month during the first six months of which the subject well shall be allowed to produce at rates up to 3 times the daily project allowable of 561 BOPD or 1683 BOPD and then at the rate of 841.5 BOPD for the second six month period but that any over production which has accrued at the end of the twelve month test period shall be made up during the next twelve months of production, such that no over-production shall exist after the 24th month following first production.

(4) On July 2, 1994, the Division entered Order R-10158 which authorized the subject well and its non-standard proration and spacing unit, approve the project allowable of 561 BOPD but DENIED the request for a special production test period.

(5) At the DeNovo hearing before the Commission, Phillips has modified its request and now seeks a special production testing period of six month during which the subject well shall be allowed to produce at rates up to 3 times the daily project allowable of 561 BOPD or 1683 BOPD but that any over production which has accrued at the end of the test period shall be made up during the next six months of production, such that no over-production shall exist after the 12th month following first production.

(6) Bass Enterprises Production Company ("Bass"), the operator for the James Ranch Unit which includes Section 14, the southern offset to the proposed project area, appeared at the hearing in opposition to Phillips' request.

(7) Phillips seeks approval of the special production test period based upon geologic and petroleum engineering evidence which established that:

a) The Cherry Canyon member of the Cabin Lake-Delaware Oil Pool is the potential productive zone at this location in the Pool. That interval is located between 4,500 feet and 5,900 and is a solution gas drive reservoir.

b) By drilling a single high angle/horizontal wellbore, Phillips is decreasing flow velocity in the reservoir while increasing the amount of the reservoir which is normally exposed in the wellbore of a vertical well which is calculated to result in the recovery of an amount of gas and oil equivalent to the production of three vertical wells, thereby preventing waste caused by the drilling of unnecessary vertical wells.

c) The purpose of the special testing period is to provide an opportunity for Phillips to conduct rate-time tests on the project well in order to obtain relevant reservoir data including reliable permeability information which cannot be obtained with any other method.

d) Based upon reservoir models, production of the subject well at rates up to 1,600 BOPD demonstrates that such withdrawal rates will not cause damage to the reservoir or cause waste;

e) By granting the request, Phillips will be afforded the opportunity to determine the extent to which the performance of the well is affected by "skin damage;"

f) In the absence of such a testing period, then Phillips estimates that approximately 100,000 barrels of recoverable oil may be left unproduced by its well because

any reduction in productivity of the well attributed to skin damage would go undetected;

g) That the maximum total overproduction volume of oil to be produced during the test period may amount to 123,000 barrels of oil which represents less than 4% of the total oil in place underlying the Phillips' project area;

h) That the obligation to make up any overproduction remaining at the end of the testing period will afford to Bass an opportunity to protect its correlative rights by offsetting any temporary advantage obtained by Phillips;

i) That approval of the test will not result in any net uncompensated drainage nor will it reduce ultimate oil recovery.

(8) Bass Enterprises Production Company ("Bass") in opposition to the granting of a special production test period presented:

a) a computer simulation of production based upon the assumption that Bass would commence producing an offsetting well 12 months after the commencement of production from the Phillips well which illustrated that at the end of the second year of production by the Bass well, an estimated 18,716 barrels of oil would have migrated from the Bass spacing unit to the Phillips' spacing unit; and

b) based entirely upon that simulation, Bass contended its correlative rights would be impaired.

(9) The Commission finds that:

a) ultimate recovery from the proposed Phillips well may be reduced by an estimated 100,000 barrels of oil if it is not allowed to conduct rate/time analyses as proposed;

b) the special production test period is necessary in order to provide an opportunity for Phillips to conduct rate-time tests on the project well in order to obtain relevant reservoir data including reliable "skin damage" information which cannot be obtained with any other method;

c) While Bass contended that the production test will result in the temporary migration of some oil from its spacing unit, it failed to provide any evidence that there would be any reduction in the ultimate recovery of remaining recoverable oil from its spacing unit;

d) Bass should be afforded a similar opportunity if and when it elects to drill a similar type well;

e) the obligation to be placed upon Phillips to make up any over production at the end of twelve months, timely properly and adequately protects Bass and another other interest owner's correlative rights

f) The proposed special test period would provide Phillips with the opportunity to fully evaluate its horizontal well and to obtain reservoir data which can be used by Phillips to maximize recovery from its well thereby preventing the waste of otherwise recoverable hydrocarbons.

g) In as much as the exact distance and direction of the lateral portion of the wellbore is not known at this time, the provisions of Ordering Paragraph (2) of Order R-10158 should be modified so that Phillips is allowed to drill and produce said lateral portion anywhere within an area designated a target window as follows: commencing at a producing distance not closer than 330 feet from any of the side boundaries of the proposed spacing unit so that within the drilling window no portion of the wellbore open for production shall be closer than 330 feet to the outer boundary of the spacing unit.

h) The granting of this Application will be in the best interest of conservation, the prevention of waste and the protection of correlative rights.

IT IS THEREFORE ORDERED THAT:

(1) Ordering Paragraph (8) of Order R-10158 is hereby deleted and the following substituted:

The Applicant, Phillips Petroleum Company, is hereby authorized a special production test period of six month commencing on the first day of production during which the subject well shall be allowed to produce at rates up to 3 times the daily project allowable of 561 BOPD or 1683 BOPD but that any over production which has accrued at the end of the test period shall be made up during the next six months of production, such that no over-production shall exist after the 12th month following first production.

(2) the provisions of Ordering Paragraph (2) of Order R-10158 are hereby modified so that Phillips is authorized to drill and produce said lateral portion anywhere within an area designated a target window as follows:

commencing at a producing distance not closer than 330 feet from any of the side boundaries of the proposed spacing unit so that within the drilling window no portion of the wellbore open for production shall be closer than 330 feet to the outer boundary of the spacing unit.

(3) the provisions of Ordering Paragraphs (1), (3) through (7) of Order R-10158 are hereby adopted by the Commission.

(4) Jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

**STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION**

JAMIE BAILEY, Member

WILLIAM W. WEISS, Member

WILLIAM J. LEMAY, Chairman

KELLAHIN AND KELLAHIN

ATTORNEYS AT LAW

EL PATIO BUILDING

117 NORTH GUADALUPE

POST OFFICE BOX 2265

SANTA FE, NEW MEXICO 87504-2265

W. THOMAS KELLAHIN*

*NEW MEXICO BOARD OF LEGAL SPECIALIZATION
RECOGNIZED SPECIALIST IN THE AREA OF
NATURAL RESOURCES-OIL AND GAS LAW

JASON KELLAHIN (RETIRED 1991)

TELEPHONE (505) 982-4285

TELEFAX (505) 982-2047

October 14, 1994

HAND DELIVERED

Mr. William J. LeMay
Chairman
Oil Conservation Commission
310 Old Santa Fe Trail
Santa Fe, New Mexico 87501

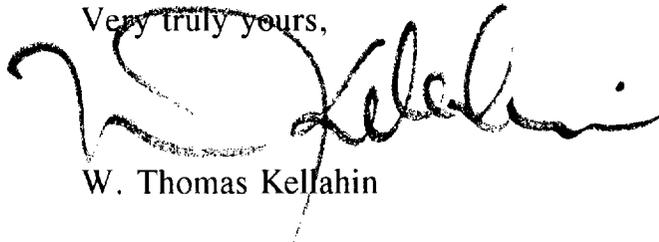
14 1994

Re: NMOCD CASE 11014 (DeNovo)
Application of Phillips Petroleum
Company for a High Angle/Horizontal/
Directional Drilling Pilot Project,
Eddy County, New Mexico

Dear Mr. LeMay:

On behalf of Phillips Petroleum Company, please find enclosed our
proposed order for consideration by the Commission.

Very truly yours,



W. Thomas Kellahin

cc: Commissioner Bill Weiss
cc: Commissioner Jamie Bailey
cc: William F. Carr, Esq.
cc: Phillips Petroleum Company (Ken Schramko)

**STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION COMMISSION**

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

**CASE NO. 11014 (DeNovo)
Order R-10158-A**

**APPLICATION OF PHILLIPS PETROLEUM COMPANY
FOR A HIGH ANGLE/HORIZONTAL/DIRECTIONAL
DRILLING PILOT PROJECT, SPECIAL OPERATING
RULES THEREFOR, INCLUDING A NON-STANDARD OIL
SPACING & PRORATION UNIT, AN UNORTHODOX OIL
WELL LOCATION, AND A SPECIAL PROJECT ALLOWABLE
AND TESTING PERIOD, EDDY COUNTY, NEW MEXICO**

**PHILLIPS PETROLEUM COMPANY'S
PROPOSED
ORDER OF THE COMMISSION**

BY THE COMMISSION:

This cause came on for hearing at 9:00 AM on September 22, 1994, at Santa Fe, New Mexico before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this ___ day of October, 1994, the Commission, a quorum being present, having considered the testimony presented and exhibits received at said hearing, and being fully advised in the premises,

FINDS THAT:

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

(2) The applicant, Phillips Petroleum Company ("Phillips"), seeks authority for a high angle/horizontal/directional drilling pilot project and special operating rules therefor including a 120-acre non-standard oil spacing and proration unit, an unorthodox oil well location, a special project allowable and testing period, Eddy County, New Mexico. Applicant seeks to initiate a horizontal drilling project in the Cherry Canyon member of the Cabin Lake-Delaware Oil Pool, underlying the SE/4SW/4 and the S/2SE/4 of Section 11, T22S, R30E, NMPM.

(3) At the Division Examiner hearing held on July 7, 1994, Phillips requested:

a) authority to drill its James E Well No. 9 Well by commencing at an unorthodox oil well surface location 10 feet FEL and 1060 feet FSL (Unit P) of Section 11, then kicking-off from vertical in a west-southwesterly direction commencing to build angle at a rate of 12 degrees per 100 feet to approximately 87 degrees and then horizontally to traverse the proposed producing area and terminate in Unit N of Section 11;

b) the adoption of special operating provisions and rules within the project area including the designation of a target window such that the horizontal or producing portion of the wellbore shall be no closer than 330 feet to any boundary of a non-standard spacing and proration unit consisting of the SE/4SW/4 and S/2SE/4 (Units N, O and P) of said Section 11;

c) a Special Daily Project Allowable for the subject well equal to 561 BOPD, being based the current depth bracket oil allowable of 187 BOPD times the number of 40-acre tracts contacted by the producing lateral of the wellbore as determined from directional surveys; and

b) to establish a special production testing period of twelve month during the first six months of which the subject well shall be allowed to produce at rates up to 3 times the daily project allowable of 561 BOPD or 1683 BOPD and then at the rate of 841.5 BOPD for the second six month period but that any over production which has accrued at the end of the twelve month test period shall be made up during the next twelve months of production, such that no over-production shall exist after the 24th month following first production.

(4) On July 2, 1994, the Division entered Order R-10158 which authorized the subject well and its non-standard proration and spacing unit, approve the project allowable of 561 BOPD but DENIED the request for a special production test period.

(5) At the DeNovo hearing before the Commission, Phillips has modified its request and now seeks a special production testing period of six month during which the subject well shall be allowed to produce at rates up to 3 times the daily project allowable of 561 BOPD or 1683 BOPD but that any over production which has accrued at the end of the test period shall be made up during the next six months of production, such that no over-production shall exist after the 12th month following first production.

(6) Bass Enterprises Production Company ("Bass"), the operator for the James Ranch Unit which includes Section 14, the southern offset to the proposed project area, appeared at the hearing in opposition to Phillips' request.

(7) Phillips seeks approval of the special production test period based upon geologic and petroleum engineering evidence which established that:

a) The Cherry Canyon member of the Cabin Lake-Delaware Oil Pool is the potential productive zone at this location in the Pool. That interval is located between 4,500 feet and 5,900 and is a solution gas drive reservoir.

b) By drilling a single high angle/horizontal wellbore, Phillips is decreasing flow velocity in the reservoir while increasing the amount of the reservoir which is normally exposed in the wellbore of a vertical well which is calculated to result in the recovery of an amount of gas and oil equivalent to the production of three vertical wells, thereby preventing waste caused by the drilling of unnecessary vertical wells.

c) The purpose of the special testing period is to provide an opportunity for Phillips to conduct rate-time tests on the project well in order to obtain relevant reservoir data including reliable permeability information which cannot be obtained with any other method.

d) Based upon reservoir models, production of the subject well at rates up to 1,600 BOPD demonstrates that such withdrawal rates will not cause damage to the reservoir or cause waste;

e) By granting the request, Phillips will be afforded the opportunity to determine the extent to which the performance of the well is affected by "skin damage;"

f) In the absence of such a testing period, then Phillips estimates that approximately 100,000 barrels of recoverable oil may be left unproduced by its well because

any reduction in productivity of the well attributed to skin damage would go undetected;

g) That the maximum total overproduction volume of oil to be produced during the test period may amount to 123,000 barrels of oil which represents less than 4% of the total oil in place underlying the Phillips' project area;

h) That the obligation to make up any overproduction remaining at the end of the testing period will afford to Bass an opportunity to protect its correlative rights by offsetting any temporary advantage obtained by Phillips;

i) That approval of the test will not result in any net uncompensated drainage nor will it reduce ultimate oil recovery.

(8) Bass Enterprises Production Company ("Bass") in opposition to the granting of a special production test period presented:

a) a computer simulation of production based upon the assumption that Bass would commence producing an offsetting well 12 months after the commencement of production from the Phillips well which illustrated that at the end of the second year of production by the Bass well, an estimated 18,716 barrels of oil would have migrated from the Bass spacing unit to the Phillips' spacing unit; and

b) based entirely upon that simulation, Bass contended its correlative rights would be impaired.

(9) The Commission finds that:

a) ultimate recovery from the proposed Phillips well may be reduced by an estimated 100,000 barrels of oil if it is not allowed to conduct rate/time analyses as proposed;

b) the special production test period is necessary in order to provide an opportunity for Phillips to conduct rate-time tests on the project well in order to obtain relevant reservoir data including reliable "skin damage" information which cannot be obtained with any other method;

c) While Bass contended that the production test will result in the temporary migration of some oil from its spacing unit, it failed to provide any evidence that there would be any reduction in the ultimate recovery of remaining recoverable oil from its spacing unit;

d) Bass should be afforded a similar opportunity if and when it elects to drill a similar type well;

e) the obligation to be placed upon Phillips to make up any over production at the end of twelve months, timely properly and adequately protects Bass and another other interest owner's correlative rights

f) The proposed special test period would provide Phillips with the opportunity to fully evaluate its horizontal well and to obtain reservoir data which can be used by Phillips to maximize recovery from its well thereby preventing the waste of otherwise recoverable hydrocarbons.

g) In as much as the exact distance and direction of the lateral portion of the wellbore is not known at this time, the provisions of Ordering Paragraph (2) of Order R-10158 should be modified so that Phillips is allowed to drill and produce said lateral portion anywhere within an area designated a target window as follows: commencing at a producing distance not closer than 330 feet from any of the side boundaries of the proposed spacing unit so that within the drilling window no portion of the wellbore open for production shall be closer than 330 feet to the outer boundary of the spacing unit.

h) The granting of this Application will be in the best interest of conservation, the prevention of waste and the protection of correlative rights.

IT IS THEREFORE ORDERED THAT:

(1) Ordering Paragraph (8) of Order R-10158 is hereby deleted and the following substituted:

The Applicant, Phillips Petroleum Company, is hereby authorized a special production test period of six month commencing on the first day of production during which the subject well shall be allowed to produce at rates up to 3 times the daily project allowable of 561 BOPD or 1683 BOPD but that any over production which has accrued at the end of the test period shall be made up during the next six months of production, such that no over-production shall exist after the 12th month following first production.

(2) the provisions of Ordering Paragraph (2) of Order R-10158 are hereby modified so that Phillips is authorized to drill and produce said lateral portion anywhere within an area designated a target window as follows:

commencing at a producing distance not closer than 330 feet from any of the side boundaries of the proposed spacing unit so that within the drilling window no portion of the wellbore open for production shall be closer than 330 feet to the outer boundary of the spacing unit.

(3) the provisions of Ordering Paragraphs (1), (3) through (7) of Order R-10158 are hereby adopted by the Commission.

(4) Jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

**STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION**

JAMIE BAILEY, Member

WILLIAM W. WEISS, Member

WILLIAM J. LEMAY, Chairman