

BEFORE THE BOARD OF OIL, GAS, AND MINING  
DEPARTMENT OF NATURAL RESOURCES  
in and for the STATE OF UTAH

IN THE MATTER OF THE APPLICATION )  
OF AMERICAN QUASAR COMPANY OF NEW )  
MEXICO FOR AN ORDER ESTABLISHING )  
TEMPORARY 160-ACRE DRILLING AND )  
SPACING UNITS FOR THE LODGEPOLE )  
FIELD INCIDENT TO THE PRODUCTION )  
OF OIL AND ASSOCIATED HYDROCARBONS )  
FROM THE NUGGET AND TWIN CREEK )  
FORMATIONS IN LANDS LOCATED IN )  
SECTIONS 25, 26, 27, 33, 34, 35 )  
and 36, TOWNSHIP 2 NORTH, RANGE 6 )  
EAST, SLM, SUMMIT COUNTY, UTAH. )

CAUSE NO. 167-2

O R D E R

This cause came on regularly before the Board and was heard, pursuant to due and proper Application and Notice of Hearing, on the 31st day of January, 1979, and thereafter until concluded on the 1st day of February, 1979, in the Executive Conference Room - Holiday Inn, 1659 West North Temple, Salt Lake City, Utah. The following named Board members (constituting a quorum of the Board) were present and in accordance with law participated in the hearing upon all matters and the decision resulting in this order:

Charles R. Henderson, Chairman, Presiding

Edward Beck

John L. Bell

Ray Juvelin

Steele McIntyre

Present, but by her own decision not participating, was  
Constance Lundberg, Board member.

Also present and participating:

Cleon B. Feight, Director and Secretary of the Board

Appearances of counsel were made as follows:

Robert G. Pruitt, Jr., Salt Lake City, Utah

Frank Douglass, Austin, Texas

Attorneys representing American Quasar Petroleum Company of New Mexico, an "Applicant" herein;

J. D. Henry, Englewood, Colorado

David K. Detton, Salt Lake City, Utah

Attorneys representing Champlin Petroleum Company, an affected operator in the area.

Becky Magee, Attorney for Amoco Production Company, an affected working interest owner in the area.

NOW, THEREFORE, the Board having fully considered the testimony of all witnesses, statements of others and all exhibits introduced and received in the course of said hearing and in all respects being fully advised in the premises, makes and enters conclusions of law and findings of fact and enters its order as follows:

#### CONCLUSIONS OF LAW

1. That the Board has jurisdiction over all matters covered by the Application, the Notice of Hearing and over the subject lands and mineral estates therein, and all parties interested in said subject lands as their respective interests appear. Further, the Board has the authority to make and enter the Order hereinafter set forth.
2. That the Application of American Quasar Petroleum Company of New Mexico respecting the Twin Creek and Nugget Formations in the Lodgepole Field duly executed, dated as of November 8, 1978, and subsequently presented for hearing, is in the form as provided by the applicable statutes and the rules and regulations governing proceedings before the Board.
3. That due, proper and regular notice of the time, place and purpose of the hearing (and any continuance thereof) was given to all interested parties in the form and manner and within the time required by law and the Rules and Regulations of the Board.
4. That it is necessary in order to prevent the types of waste contemplated by the Statutes of the State of Utah to require, and establish by order, that drilling and spacing units

for development of the subject lands shall be comprised of 160 acres and, further, requiring and establishing that said drilling and spacing units should consist of the NW/4, SW/4, NE/4 and SE/4, of each section and that the permitted well for each such drilling and spacing unit shall be located in the center of the SE/4 of each quarter section.

5. That it is necessary, in order to afford each owner of an interest in production from the subject lands an opportunity to protect his respective correlative rights to produce the share of recoverable hydrocarbons initially in place under his respective tract to establish by order that:

(a) Drilling and spacing units should consist of each quarter section being the NW/4, SW/4, NE/4 and SE/4, of each section and that the permitted well for each such drilling and spacing unit shall be located in the SE/4 of each quarter section. Provided, however, the wellbore shall not be perforated or otherwise open to production in a manner that the lowest perforation or producing interval is nearer than 300 feet, measured horizontally, from the eastern and southern boundaries of the SE/4 of the 160-acre drilling unit, then said well shall be immediately shut-in until the Board, after notice and hearing, determines whether said well shall be (1) permitted to be produced or (2) straightened, and, if permitted to produce, at what rate. However, if the operator drilling said well owns or controls the adjacent or contiguous oil and gas lease(s) and the correlative rights of the royalty owners would not be violated then the well need not be shut-in. Nevertheless, a hearing will be held to determine the status of the well.

(b) Upon written application to the Board and notice to each offset owner to said drilling unit, an operator may commence the drilling of a well under this order at a surface location of the operator's choice within the SE/4 of the quarter section comprising the 160-acre drilling unit and at total depth such well shall, at the bottom of the hole, be located within the boundaries of the 40-acre tract comprising the SE/4 of the 160-acre drilling unit. Provided, however, that the well be drilled and completed in accordance with the provisions of Paragraph 5(a) above.

(c) Upon written application with notice to the offset owners and written approval of the staff of the Board based upon subsurface geologic or topographic reasons, the surface location of the well may be placed at a point on the 160-acre drilling unit other than the SE/4 of said unit, however, the perforated interval, producing interval and bottom of the hole shall be bottomed within the SE/4 of the 160-acre drilling unit in accordance with all the provisions of Paragraph 5(a) above.

6. That the Twin Creek Formation and the Nugget Formation each, respectively, constitute a "pool".

7. That one well producing oil and associated hydrocarbons from either the Twin Creek Formation or the Nugget Formation or both,

underlying the subject lands will drain the recoverable oil and associated hydrocarbons from each formation underlying 160 surface acres (in units as above defined) and 160 surface acres is not smaller, nor greater, than the maximum area that can be efficiently and economically drained by one well.

#### FINDINGS OF FACT

1. That drilling and spacing units for development of the subject lands covered by this Cause No. 167-2 and hereinafter described, should be comprised of 160 acres and that the drilling and spacing units should consist of the NW/4, SW/4, NE/4 and SE/4 of each section and the permitted well location for each such drilling and spacing unit located in the center of the SE/4 of each quarter section. That such drilling and spacing units will prevent the types of waste contemplated by the Statutes of the State of Utah.

2. In order to afford each owner of an interest in production from the subject lands an opportunity to protect his respective correlative rights to produce the share of recoverable hydrocarbons initially in place under his respective tract, drilling and spacing units:

(a) Should consist of the NW/4, SW/4, NE/4, and SE/4 of each section, and the permitted well location for each such drilling and spacing unit shall be located in the SE/4 of each quarter section. Provided, however, that the well bore shall not be perforated or otherwise open to production in a manner that the lowest perforation or producing interval is nearer than 300 feet, measured horizontally, from the eastern and southern boundaries of the SE/4 of the 160-acre drilling unit on which the surface of the well is located. In the event that the lowest perforation or producing interval in the wellbore, when measured horizontally, is nearer than 300 feet from the eastern and southern boundaries of the SE/4 of the 160-acre drilling unit, then said well shall be immediately shut-in until the Board, after notice and hearing, determines whether said well shall be (1) permitted to be produced or (2) straightened and, if permitted to produce, at what rate. However, if the operator drilling said well owns or controls the adjacent or contiguous oil and gas lease(s) and the correlative rights of the royalty owners would not be violated then the well need not be shut-in. Nevertheless, a hearing will be held to determine the status of the well.

(b) Upon written application to the Board and notice to each offset owner to said drilling unit, an operator may commence the drilling of a well under this order at a surface location of the operator's choice within the SE/4 of the quarter section comprising the 160-acre drilling unit and at a total depth such well shall, at the bottom of the hole, be located within the boundaries of the 40-acre tract comprising the SE/4 of the 160-acre drilling unit. Provided, however, that the well be drilled and completed in accordance with the provisions of Paragraph 5(a) above.

(c) Upon written application with notice to the offset owners and written approval of the staff of the Board

based upon subsurface geologic or topographic reasons, the surface location of the well may be placed at a point on the 160-acre drilling unit other than the SE $\frac{1}{4}$  of said unit, however, the perforated interval, producing interval and bottom of the hole shall be bottomed within the SE $\frac{1}{4}$  of the 160-acre drilling unit in accordance with all the provisions of Paragraph 5(a).

3. ~~The subject lands covered by this Order~~ for both the Twin Creek and Nugget Formations are described as follows:

Summit County, Utah

Township 2 North, Range 6 East, SLM

Section 25:	All
Section 26:	All
Section 27:	All
Section 33:	All
Section 34:	All
Section 35:	All
Section 36:	All

4. That one well producing oil and associated hydrocarbons from either the Twin Creek Formation or the Nugget Formation, or both, underlying the subject lands will drain the recoverable oil and associated hydrocarbons from each formation underlying 160 surface acres (in units as above defined) and 160 surface acres is not smaller, nor greater, than the maximum area that can be efficiently and economically drained by one well.

5. That the Twin Creek Formation underlies the subject lands and that said formation constitutes a "pool." That the Twin Creek Formation for all purposes herein is defined as that interval or stratigraphic equivalent of 10,188 feet down to and including 11,622 feet as shown on the Schlumberger Borehole Compensated Sonic Log of the American Quasar No. 34-1 Judd Well, located in the SE $\frac{1}{4}$ SE $\frac{1}{4}$  of Section 4, Township 2 North, Range 6 East, SLM, Summit County, Utah.

6. That the Nugget Formation underlies the subject lands and that said formation constitutes a "pool." That the Nugget Formation for all purposes herein is defined as that interval or stratigraphic equivalent of 11,888 feet down to and including 13,358 feet as shown on Schlumberger Borehole Compensated Sonic Log of the American Quasar No. 35-1 UPRR Well, located in the SE $\frac{1}{4}$ NW $\frac{1}{4}$  of Section 35, Township 2 North, Range 6 East, SLM, Summit County, Utah.

7. That 160 acre drilling and spacing units best accommodate, for the purposes of prevention of waste and protection of correlative rights, the existing development in the field, future development of the field, and has the effect of maximizing ultimate future recovery of oil and associated hydrocarbons.

8. That this order should be and is hereby a temporary Order for a period of one year from the date hereof unless otherwise extended.

9. That the flaring of gas incident to production of oil and associated hydrocarbons shall not be permitted, unless exceptions have been granted, and drilling and production operations conducted pursuant to authorizations contained in this Order shall be conducted in such a manner as to provide for maximum recovery, and capacities of gas plants as available from time to time in the course of development of the field shall not, by operators in the field, be exceeded.

10. That water unavoidably produced with oil, or otherwise developed and brought to the surface by operations authorized herein, shall be disposed of by operators in all respects in accordance with the requirement of Utah Law.

11. That commingling of oil and gas produced from the Twin Creek and Nugget Formations, is hereby forbidden without further order of the Board however, surface commingling will be permitted if (1)(a) separate production facilities are maintained for oil produced from each formation or (1)(b) the volumes of oil produced from the Twin Creek and Nugget Formations are metered prior to commingling and (2) gas volumes produced from each formation are metered prior to combining gas for processing or sale.

12. The Board having considered the request made by Champlin in Paragraph 2 of its Objection to Application filed herein, suspends the granting of the variance until the completion of the proposed reworking operation of the American Quasar 35-1 Well. In the event that the recompletion operation is not commenced on or before July 1, 1979, or

should the reworking operation not be successful, or should the reworking operation not produce evidence negating Champlin's evidence that a location in the SE/4, NE/4 of Section 35 would be a dry hole, the Board would entertain an "Application for Variance" from the permitted well location and would make a determination after notice and hearing.

13. The Board having considered the request made by Champlin in Paragraph 3 of its Objection to Application filed herein, suspends the granting of a second permitted well on the NW/4 of Section 35 to be located in the NW/4 of Section 35 pending the completion of the American Quasar 27-1 well now drilling in the SE/4 SE/4 of Section 27. The completion of the American Quasar 27-1 well, which is also located on lands in which Champlin has a royalty interest, will result in the availability of additional geologic and engineering information. The Board will entertain an "Application for Variance" from the permitted well location and make a determination after notice and hearing based upon the availability of the geologic and engineering evidence from the drilling and completion of the American Quasar 27-1 well.

THAT pursuant to the foregoing "Conclusions of Law" and "Findings of Fact," the Board hereby makes the following:

ORDER

1. That drilling and spacing units for development of the subject lands shall be comprised of 160 acres and that the drilling and spacing units shall consist of the NW $\frac{1}{4}$ , SW $\frac{1}{4}$ , NE $\frac{1}{4}$  and SE $\frac{1}{4}$  of each quarter section. That such drilling and spacing units will prevent the types of waste contemplated by the Statutes of the State of Utah.

2. In order to afford each owner of an interest in production from the subject lands an opportunity to protect his respective correlative right to produce the share of recoverable hydrocarbons initially in place under his respective tract, that:

(a) Drilling and spacing units should consist of each quarter section being the NW/4, SW/4, NE/4 and SE/4, of each section and that the permitted well for each such drilling and spacing unit shall be located in the SE/4 of each quarter section. Provided, however, the wellbore shall not be perforated or otherwise open to production in a manner that the lowest perforation or producing interval is nearer than 300 feet, measured horizontally from the eastern and southern boundaries of the SE/4 of the 160-acre drilling unit, on which the surface of the well is located. In the event that the lowest perforated or producing interval in the wellbore, when measured horizontally, is nearer than 300 feet from the eastern and southern boundaries of SE/4 of the 160-acre drilling unit, then said well shall be immediately shut-in until the Board, after notice and hearing, determines whether said well shall be (1) permitted to be produced or (2) straightened, and if permitted to produce, at what rate. However, if the operator drilling

said well owns or controls the adjacent or contiguous oil and gas lease(s) and the correlative rights of the royalty owners would not be violated then the well need not be shut-in. Nevertheless, a hearing will be held to determine the status of the well.

(b) Upon written application to the Board and notice to each offset owner to said drilling unit, an operator may commence the drilling of a well under this order at a surface location of the operator's choice within the SE/4 of the quarter section comprising the 160-acre drilling unit. Provided, however, that the well be drilled and completed in accordance with the provisions of Paragraph 5(a) above.

(c) Upon written application with notice to the offset owners and written approval of the staff of the Board based upon subsurface geologic or topographic reasons, the surface location of the well may be placed at a point on the 160-acre drilling unit other than the SE/4 of said unit, however, the perforated interval, producing interval and bottom of the hole shall be bottomed within the SE/4 of the 160-acre drilling unit in accordance with all the provisions of Paragraph 5(a) above.

3. The subject lands covered by this Order for both the Twin Creek and Nugget Formations are described as follows:

Summit County, Utah

Township 2 North, Range 6 East, SLM

Section 25:	A11
Section 26:	A11
Section 27:	A11
Section 33:	A11
Section 34:	A11
Section 35:	A11
Section 36:	A11

4. That one well producing oil and associated hydrocarbons from either the Twin Creek Formation or the Nugget Formation, or both, underlying the subject lands will drain the recoverable oil and associated hydrocarbons from each formation, underlying 160 surface acres (in units as above defined) and 160 surface acres is not smaller, nor greater, than than the maximum area that can be efficiently and economically drained by one well.

5. That the Twin Creek Formation underlies the subject lands and that said formation constitutes a "pool." That the Twin Creek Formation for all purposes herein is defined as that interval or stratigraphic equivalent of 10,188 feet down to and including 11,622 feet as shown on the Schlumberger Borehole Compensated Sonic Log of the



American Quasar No. 34-1 Judd Well, located in the SE $\frac{1}{4}$ SE $\frac{1}{4}$  of Section 34, Township 2 North, Range 6 East, SLM, Summit County, Utah.

6. That the Nugget Formation underlies the subject lands and that said formation constitutes a "pool." That the Nugget Formation for all purposes herein is defined as that interval or stratigraphic equivalent of 11,888 feet down to and including 13,358 feet shown on the Schlumberger Borehole Compensated Sonic Log American Quasar No. 35-1 UPRR Well, located in the SE $\frac{1}{4}$ NW $\frac{1}{4}$  of Section 35, Township 2 North, Range 6 East, SLM, Summit County, Utah.

7. That 160 acre drilling and spacing units best accommodate for purposes of prevention of waste and protection of correlative rights the existing development in the field, future development of the field, and has the effect of maximizing ultimate future recovery of oil and associated hydrocarbons.

8. That this Order should be and is hereby a temporary Order for a period of one year hereof unless otherwise extended.

9. That flaring of gas incident to production of oil and associated hydrocarbons shall not be permitted, unless exceptions have been granted, and drilling and production operations conducted pursuant to authorizations contained in this Order shall be conducted in such a manner as to provide for maximum recovery, and capacities of gas plants as available from time to time in the course of development of the field shall not, by operators in the field, be exceeded.

10. That water unavoidably produced with oil, or otherwise developed and brought to the surface by operations authorized herein, shall be disposed of by operators in all respects in accordance with requirements of Utah Law.

11. That commingling of oil and gas produced from the Twin Creek and Nugget Formations, is hereby forbidden without further order of the Board however, surface commingling will be permitted if (1)(a) separate production facilities are maintained for oil produced from each formation or (1)(b) ties are maintained for oil produced from the Twin

Creek and Nugget Formations are metered prior to commingling and (2) gas volumes from each formation are metered prior to combining gas for processing or sale.

12. The Board having considered the request made by Champlin in Paragraph 2 of its Objection to Application filed herein, suspends the granting of the variance until the completion of the proposed reworking operation of the American Quasar 35-1 well. In the event that the recompletion operation is not commenced on or before July 1, 1979, or should the reworking operation not be successful, or should the reworking operation not produce evidence negating Champlin's evidence that a location in the SE/4 NE/4 of Section 35 would be a dry hole, the Board would entertain an "Application for Variance" from the permitted well location and would make a determination after notice and hearing.

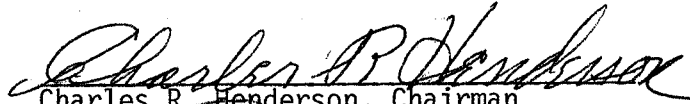
13. The Board having considered the request made by Champlin in Paragraph 3 of its Objection to Application filed herein, suspends the granting of a second permitted well on the NW/4 of Section 35 to be located in the NW/4 of Section 35 pending the completion of the American Quasar 27-1 well now drilling in the SE/4 SE/4 of Section 27. The completion of the American Quasar 27-1 well, which is also located on lands in which Champlin has a royalty interest, will result in the availability of additional geologic and engineering information. The Board will entertain an "Application for Variance" from the permitted well location and make a determination after notice and hearing based upon the availability of the geologic and engineering evidence from the drilling and completion of the American Quasar 27-1 well.

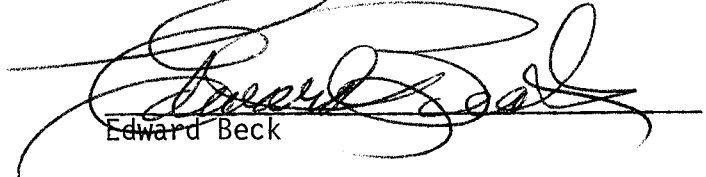
IT IS FURTHER ORDERED:

That the Board retains continuing jurisdiction over all matters covered by this Order and over all parties affected thereby and particularly the Board retains and reserves continuing jurisdiction to make further Orders as it may deem appropriate and as authorized by statute and applicable regulations.


ENTERED this 10<sup>th</sup> day of February, 1979.


BOARD OF OIL, GAS AND MINING

  
Charles R. Henderson, Chairman

  
Edward Beck

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John L. Bell

  
Ray Juvet'in

  
Steele McIntyre