

**FILED**

JUL 17 2008

SECRETARY, BOARD OF  
OIL, GAS & MINING

**BEFORE THE BOARD OF OIL, GAS AND MINING  
DEPARTMENT OF NATURAL RESOURCES  
STATE OF UTAH**

IN THE MATTER OF THE REQUEST FOR AGENCY ACTION OF KERR-MCGEE OIL & GAS ONSHORE LP FOR AN ORDER FORMALLY TERMINATING THE BOARD'S ORDER IN CAUSE NO. 174-1, AND MODIFYING THE BOARD'S ORDER IN CAUSE NO. 179-13 AND UTAH ADMIN. CODE RULE R649-3-2 TO PROVIDE FOR THE DRILLING OF WELLS TO ACHIEVE THE EQUIVALENT OF AN APPROXIMATE 10-ACRE WELL DENSITY PATTERN FOR THE PRODUCTION OF GAS AND ASSOCIATED OIL AND HYDROCARBONS FROM THE WASATCH FORMATION AND MESAVERDE GROUP IN PORTIONS OF SECTION 33 AND ALL OF SECTION 34, TOWNSHIP 8 SOUTH, RANGE 23 EAST, SLM, ALL OF SECTIONS 1-5, 8-17, 23-26, 35 AND 36, TOWNSHIP 9 SOUTH, RANGE 23 EAST, SLM, AND ALL OF SECTIONS 1-4, PORTIONS OF SECTIONS 7-9, AND ALL OF SECTIONS 10-23 AND 27-34, TOWNSHIP 9 SOUTH, RANGE 24 EAST, SLM, UTAH COUNTY, UTAH

**AMENDED  
FINDINGS OF FACT,  
CONCLUSIONS OF LAW AND  
ORDER**

Docket No. 2008-012

Cause No. 179-15

This Cause came on for hearing before the Utah Board of Oil, Gas and Mining (the "Board") on Wednesday, May 21, 2008, at approximately 11:50 a.m. in Roosevelt, Utah. The following Board members were present and participated at the hearing: Chairman Douglas E. Johnson, Kent R. Petersen, Robert J. Bayer, Samuel C. Quigley and Jake Y. Harouny. Board Members Jean Semborski and Ruland J. Gill, Jr. were unable to attend. The Board was represented by Michael S. Johnson, Esq., Assistant Attorney General.

Testifying on behalf of Petitioner Kerr-McGee Oil & Gas Onshore LP ("KMG") were Chris Latimer – Senior Landman, Robert Single – Geologist, and Scott Gamble – Senior Reservoir Engineer. Frederick M. MacDonald, Esq., of and for Beatty & Wozniak, P.C.,

appeared as attorney for KMG.

Testifying on behalf of the Division of Oil, Gas and Mining (the "Division") was Bradley G. Hill – Oil & Gas Permitting Manager. James P. Allen, Esq., Assistant Attorney General, appeared as attorney on behalf of the Division. The Division expressed its support for the granting of KMG's Request for Agency Action dated April 10, 2008 (the "Request") at the conclusion of its presentation, with KMG's stipulation that the requirements set forth in Utah Admin. Code Rule R649-3-11(3) would not be suspended and remain applicable.

At the conclusion of KMG's and the Division's presentations, Matt Baker, Petroleum Engineer, Vernal District Office, United States Bureau of Land Management ("BLM"), expressed the BLM's support for the granting of the Request but indicated that the BLM would not support surface disturbance on less than 40 acres. Erin Osborne, Geologist, Questar Exploration and Production Company ("QEP"), a working interest/operating rights owner within the area affected by the Request and operator of wells in and around said area, also made a statement indicating QEP's wells confirmed laterally discontinuous and compartmentalized sand bodies throughout the Wasatch and Mesaverde formations even when drilled on a 20-acre density pattern.

Thurston Energy, LLC, Forest Oil Corporation, EOG Resources, Inc. and EnCana Oil & Gas (USA) Inc., all working interest/operating rights owners within the area affected by the Request, filed letters with the Board in support of the granting of the Request.

No other party filed a response to the Request and no other party appeared or participated

at the hearing.

The Board, having considered the testimony presented and the exhibits received into evidence at the hearing, being fully advised, and for good cause, hereby makes the following amended findings of fact, conclusions of law and order.

### **FINDINGS OF FACT**

1. KMG is a Delaware limited partnership in good standing and authorized to conduct business in the State of Utah. It is duly bonded with all appropriate State of Utah and Federal agencies relative to this cause.

2. By Order entered in Cause No. 174-1 on February 22, 1978 (the "174-1 Order"), the Board established 320-acre lay-down (horizontal) drilling units for the production of gas and associated hydrocarbons from the Wasatch-Mesaverde Formations, defined as:

that interval below the stratigraphic equivalent of 4,397 feet down to and including the stratigraphic equivalent of 8,568 feet, as shown on the dual induction-laterlog of the Chorney Oil Company and Pacific Gas Transmission Company South Redwash Federal 1-18 located in the NW $\frac{1}{4}$ NE $\frac{1}{4}$  of Sec. 18, T. 9 S., R. 24 E., S.L.M., Uintah County, Utah,

for Sections 13-15 inclusive of Township 9 South, Range 23 East, SLM, Uintah County, Utah.

However, the Board expressly stated that the establishment of said drilling units "shall be for a temporary period of one year from the entry" of said Order. The 174-1 Order is the only order that the Board and Division have currently indexed in their records as being applicable to said lands.

3. However, as discovered after the hearing and entry of the Board's original Findings of Fact, Conclusions of Law and Order entered in the Cause on June 12, 2008, the Board, by Order entered April 25, 1979 in Cause No. 173-2 (the "173-2 Order"), made the 174-1 Order permanent. The 173-2 Order does not itself contain any legal descriptions and, as an apparent consequence, is not indexed by the Board and Division in their records as applicable to the Section 13-15 lands.

4. By Order entered in Cause No. 179-13 on March 28, 2007 (the "179-13 Order"), the Board modified Utah Admin. Code Rule R649-3-2(1), as relating to the production of gas from the Wasatch Formation and Mesaverde Group, defined as:

all depths from the top of the Wasatch formation, found at the stratigraphic equivalent of 4,034 feet, to the base of the Castlegate, a member of the Mesaverde group, found at the stratigraphic equivalent of 7,897 feet, as found in the 3ML-9-9-24 well located in the NE $\frac{1}{4}$ NW $\frac{1}{4}$  of Section 9, Township 9 South, Range 24 East, SLM, Uintah County, Utah,

(the "Subject Formations"), as to the following Uintah County, Utah lands:

Township 9 South, Range 23 East, SLM

Section 10: N $\frac{1}{2}$ , N $\frac{1}{2}$ SW $\frac{1}{4}$ , SE $\frac{1}{4}$   
Section 12: E $\frac{1}{2}$ NE $\frac{1}{4}$   
Section 17: W $\frac{1}{2}$ E $\frac{1}{2}$ , W $\frac{1}{2}$   
Section 26: All,

to allow the drilling of wells on an approximate 20-acre density pattern subject to the limitations that no well may be located, absent an exception location approval by the Division in accordance with Utah Admin. Code Rule R649-3-3, closer than 460 feet from: (1) any well drilled to or

capable of producing gas from the Subject Formations; and (2) the boundaries of the lands subject to said Order. In addition, the Board required that a plat or map, illustrating that a well proposed in accordance with said Order satisfies said location restrictions, be submitted to the Division with any application for permit to drill.

5. The following Uintah County, Utah lands are currently not subject to any orders of the Board and therefore ostensibly remain subject to the location requirements of Utah Admin.

Code Rule R649-3-2:

Township 8 South, Range 23 East, SLM

Section 33: All except SW $\frac{1}{4}$ SW $\frac{1}{4}$   
Section 34: All

Township 9 South, Range 23 East, SLM

Section 1: Lots 1 (36.01), 2 (36.04), 3 (36.06)  
and 4 (36.09), S $\frac{1}{2}$ N $\frac{1}{2}$ , S $\frac{1}{2}$  [All]  
Section 2: Lots 1 (36.11), 2 (36.14), 3 (36.16)  
and 4 (36.19), S $\frac{1}{2}$ N $\frac{1}{2}$ , S $\frac{1}{2}$  [All]  
Section 3: Lots 1 (36.20), 2 (36.18), 3 (36.18)  
and 4 (36.16), S $\frac{1}{2}$ N $\frac{1}{2}$ , S $\frac{1}{2}$  [All]  
Section 4: Lots 1 (36.15), 2 (36.14), 3 (36.12)  
and 4 (36.11), S $\frac{1}{2}$ N $\frac{1}{2}$ , S $\frac{1}{2}$  [All]  
Section 5: Lots 1 (36.11), 2 (36.14), 3 (36.16)  
and 4 (36.19), S $\frac{1}{2}$ N $\frac{1}{2}$ , S $\frac{1}{2}$  [All]  
Section 8: All  
Section 9: All  
Section 10: S $\frac{1}{2}$ SW $\frac{1}{4}$   
Section 11: All  
Section 12: W $\frac{1}{2}$ NE $\frac{1}{4}$ , NW $\frac{1}{4}$ , S $\frac{1}{2}$   
Section 13: All  
Section 14: All  
Section 15: All

Section 16: All  
Section 17: E $\frac{1}{2}$ E $\frac{1}{2}$   
Section 23: All  
Section 24: All  
Section 25: All  
Section 35: All  
Section 36: All

Township 9 South, Range 24 East, SLM

Section 1: Lots 1 (36.04), 2 (36.13), 3 (36.21), 4 (36.30) and 5 (33.83), S $\frac{1}{2}$ N $\frac{1}{2}$ , SE $\frac{1}{4}$ , SE $\frac{1}{4}$ SW $\frac{1}{4}$  and patented mining claims [All]  
Section 2: Lots 1 (36.34), 2 (36.35), 3 (36.35), 4 (36.36), 5 (45.13), 6 (25.30), 7 (20.86), 8 (37.51), 9 (55.50), 10 (14.60), 11 (32.63) and 12 (49.54), SE $\frac{1}{4}$ NW $\frac{1}{4}$ , S $\frac{1}{2}$ NE $\frac{1}{4}$ , SW $\frac{1}{4}$ SW $\frac{1}{4}$  and patented mining claims [All]  
Section 3: Lots 1 (36.36), 2 (36.37), 3 (36.37), 4 (36.38), 5 (39.50), 10 (11.55), 11 (19.31), 12 (26.45) and 13 (44.24), SW $\frac{1}{4}$ NW $\frac{1}{4}$ , SW $\frac{1}{4}$ , W $\frac{1}{2}$ SE $\frac{1}{4}$ , SE $\frac{1}{4}$ SE $\frac{1}{4}$  and patented mining claims [All]  
Section 4: Lots 1 (36.36), 2 (36.31), 3 (36.27) and 4 (36.22), S $\frac{1}{2}$ N $\frac{1}{2}$ , S $\frac{1}{2}$  [All]  
Section 7: Lots 3 (38.04) and 4 (38.15), E $\frac{1}{2}$ SW $\frac{1}{4}$ , SE $\frac{1}{4}$  [S $\frac{1}{2}$ ]  
Section 8: W $\frac{1}{2}$ SW $\frac{1}{4}$   
Section 9: E $\frac{1}{2}$   
Section 10: All  
Section 11: All  
Section 12: Lots 1 (47.27), 2 (29.44), 3 (13.69), 4 (40.76), 5 (22.72), 6 (17) and 7 (34.81), S $\frac{1}{2}$ NW $\frac{1}{4}$ , S $\frac{1}{2}$  and patented mining claims [All]  
Section 13: All  
Section 14: All  
Section 15: Lots 1 (39.64), 2 (38.20), 3 (22.20) and 4 (39.05), N $\frac{1}{2}$ , W $\frac{1}{2}$ SW $\frac{1}{4}$ , N $\frac{1}{2}$ SE $\frac{1}{4}$  and patented mining claims [All]  
Section 16: All  
Section 17: All

- Section 18: Lots 1 (38.27), 2 (38.41), 3 (38.55) and 4 (38.59), E $\frac{1}{2}$ W $\frac{1}{2}$ , E $\frac{1}{2}$  [All]
- Section 19: Lots 1 (38.72), 2 (38.62), 3 (38.54) and 4 (38.44), E $\frac{1}{2}$ W $\frac{1}{2}$ , E $\frac{1}{2}$  [All]
- Section 20: All
- Section 21: All
- Section 22: Lots 1 (4.91), 2 (25.85) and 3 (39.64), S $\frac{1}{2}$ NE $\frac{1}{4}$ , NW $\frac{1}{4}$ , S $\frac{1}{2}$  and patented mining claims [All]
- Section 23: Lots 1 (43.34), 2 (23.92), 3 (36.63), 4 (23.54), 5 (23.71), 6 (44.74), 7 (16.41), 8 (20.24), 9 (15.96), 10 (33.11) and 11 (38.72), N $\frac{1}{2}$ NE $\frac{1}{4}$ , W $\frac{1}{2}$ SW $\frac{1}{4}$ , SE $\frac{1}{4}$ SW $\frac{1}{4}$ , SW $\frac{1}{4}$ SE $\frac{1}{4}$  and patented mining claims [All]
- Section 27: All
- Section 28: All
- Section 29: All
- Section 30: Lots 1 (38.44), 2 (38.51), 3 (38.59) and 4 (38.66), E $\frac{1}{2}$ W $\frac{1}{2}$ , E $\frac{1}{2}$  [All]
- Section 31: Lots 1 (38.71), 2 (38.74), 3 (38.76) and 4 (38.79), E $\frac{1}{2}$ W $\frac{1}{2}$ , E $\frac{1}{2}$  [All]
- Section 32: Lot 1 (39.10), N $\frac{1}{2}$ NE $\frac{1}{4}$ , SW $\frac{1}{4}$ NE $\frac{1}{4}$ , NW $\frac{1}{4}$ , S $\frac{1}{2}$  and patented mining claims [All]
- Section 33: Lots 1 (44.05), 2 (26.93), 3 (43.37), 4 (26.10), 5 (20.90), 6 (37.34), 7 (32.92) and 8 (49.39), NE $\frac{1}{4}$ , N $\frac{1}{2}$ NW $\frac{1}{4}$ , S $\frac{1}{2}$ SW $\frac{1}{4}$  and patented mining claims [All]
- Section 34: Lots 1 (53.65), 2 (18.92), 3 (29.67) and 4 (39.82), N $\frac{1}{2}$ , NE $\frac{1}{4}$ SW $\frac{1}{4}$ , N $\frac{1}{2}$ SE $\frac{1}{4}$ , SE $\frac{1}{4}$ SE $\frac{1}{4}$  and patented mining claims [All]

Under this Rule, each well is to be located within a 400-foot “window” surrounding the center of each governmental quarter-quarter section, or a substantially equivalent lot or tract or combination of lots or tracts, and no well may be located closer than 920 feet from an existing well drilling to or capable of producing from the same pool. The practical consequence of this

location pattern is to allow a maximum of four (4) wells per quarter section and 16 wells per section, *i.e.* the equivalent of an approximate 40-acre drilling density. The above described lands, together with the lands subject to the 174-1 and 179-13 Orders, are hereinafter collectively referred to as the "Hatch Lands."

6. The gas and associated oil and hydrocarbons underlying the Hatch Lands are primarily under Federal ownership, with scattered State of Utah and fee (private) ownership. All of the Hatch Lands appear to be leased except as follows:

Township 9 South, Range 24 East, SLM

Section 1:	Lots 1-5, S $\frac{1}{2}$ N $\frac{1}{2}$ , N $\frac{1}{2}$ S $\frac{1}{2}$ , SE $\frac{1}{4}$ SW $\frac{1}{4}$ and SW $\frac{1}{4}$ SE $\frac{1}{4}$
Section 4:	Lots 3 and 4, S $\frac{1}{2}$ N $\frac{1}{2}$ , N $\frac{1}{2}$ SE $\frac{1}{4}$ and SE $\frac{1}{4}$ SE $\frac{1}{4}$
Section 10:	NW $\frac{1}{4}$
Section 14:	S $\frac{1}{2}$ , NE $\frac{1}{4}$ and SW $\frac{1}{4}$ NW $\frac{1}{4}$
Section 15:	SW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$
Section 22:	Lot 1

KMG is a lessee and operating rights owner in approximately 30% of these lands.

7. There apparently are no communitization agreements or other contractual agreements entered into in accordance with the 174-1 Order, as modified by the 173-2 Order, allocating production from the Subject Formations on any basis other than a leasehold basis.

8. In Paragraph 6 of the Findings of Fact of the 179-13 Order, the Board expressly found that the Subject Formations:

...are comprised of very tight sands in narrow, sinuous channels, ranging from 5 to 25 feet thick, which are shaley and have low porosity (averaging less than 9%



of the total rock volume) and permeability (between .005 and 5 md). Based on well log correlation, surface outcrops and the study of modern fluvial environments, the sands appear to be less than 250 feet wide. Additional evaluation of fracture orientation, production logs, net pay distribution and pressure tests also indicate that wells drilled based on a 40-acre density pattern are not intersecting portions of the productive sands, and without a tighter density pattern, there is a high possibility gas reserves in the [relevant lands] will be left in the ground unrecovered.

Similar findings concerning the Subject Formations were made by the Board in its Orders entered in Cause No. 179-11 on May 19, 2005 and in Cause No. 179-12 on July 5, 2005 as relating to the Bonanza and Southman Canyon areas located to the southwest of the Hatch Lands.

Logs from existing wells located on the Hatch Lands reflect that the sand bodies of the Subject Formations are likewise discontinuous. Most, if not all, of these wells, however, have been drilled on a 40-acre density pattern.

9. Data gathered from wells within the vicinity of the Hatch Lands has shown and/or confirmed:

- a) The sand bodies are numerous, small and discontinuous. Wells drilled even as close as 505 feet apart do not intersect all of the same sand bodies and therefore reflect great lateral variability in the productive sandstones of the Subject Formations. Surface outcrop studies indicate that the average apparent width of the sand bodies is 637 feet. Theoretically, wells on a 10-acre density pattern would be located 660 feet apart;
- b) The sand bodies contain complex interval structures, many of which are barriers to flow, and are tight with permeabilities in the micro-darcy range;
- c) Consistent fracture orientation in the area allows wells to be placed in a pattern so as to minimize potential interference; and

- d) Diagnostic Fluid Injection Tests (DFIT) conducted on many of the wells detected minimal, if any, depletion even though the tests were designed to seek out intervals with the most likely chance of seeing depletion.

These characteristics would appear to extend across and be applicable to the Hatch Lands as well.

10. Volumetric estimations reflect a 76% recovery efficiency on a 10-acre density pattern for the Subject Formations underlying the Hatch Lands.

11. Economic Sensitivity to Reserve analysis reflects that drilling wells on a 10-acre density pattern for the Subject Formations is economic.

12. There is a likelihood that, if development of the Subject Formations underlying the Hatch Lands does not occur on an approximate 10-acre well density pattern, valuable resources will not be recovered.

13. The Board recognizes that it has previously authorized development of the Subject Formations in areas nearby the Hatch Lands, in addition to the lands subject to the 179-13 Order, on a 20-acre density pattern, that it is concurrently authorizing development of substantially all of the Subject Formations in the Bonanza and Southman Canyon areas located directly southwest of the Hatch Lands, on a 10-acre density pattern, and that the Colorado Oil and Gas Conservation Commission has authorized development of the Williams Fork Formation, analogous to the Mesaverde Group as defined above, in the Piceance Basin of Colorado on a 10-acre density pattern, for similar reasons.

14. A copy of the Request was mailed, postage pre-paid, certified with return receipt requested, and properly addressed, to all working interest/operating rights owners and operators within the Hatch Lands, and to all royalty and overriding royalty interest owners within Sections 13-15 of Township 9 South, Range 25 East, SLM, to their last addresses disclosed by the appropriate Federal, Indian, State and County realty records, and to the governmental agencies having jurisdiction over the minerals underlying said lands.

15. Notice of the filing of the Request and of the hearing thereon was duly published in the Salt Lake Tribune and Deseret Morning News on April 29, 2008, and in the Vernal Express on April 30, 2008.

16. The vote of the Board members present in the hearing and participating in this Cause was unanimous in favor of granting the Request.

#### **CONCLUSIONS OF LAW**

1. Due and regular notice of the time, place and purpose of the hearing was properly given to all parties whose legally protected interests are affected by the Request in the form and manner as required by law and the rules and regulations of the Board and Division.

2. The Board has jurisdiction over all matter covered by the Request and all interested parties therein, and has the power and authority to render the order herein set forth pursuant to Utah Code Ann. §§ 40-6-5(3)(b) and 40-6-6(6) and Utah Admin. Code Rule R649-2-1.

3. The termination of the 174-1 Order, as modified by the 173-2 Order, and the

modification of the 179-13 Order and Utah Admin. Code Rule R649-3-2 to allow the drilling of additional wells on the Hatch Lands to achieve the equivalent of an approximate 10-acre well density pattern for the production of gas and associated oil and hydrocarbons from the Subject Formations, with the proviso that the additional wells so authorized may be located no closer than 460 feet from the exterior boundary of any lease within said lands unless an exception is granted by the Division in accordance with Utah Admin. Code Rule R649-3-3 for topographical, geological, environmental, and archeological considerations and when “no surface occupancy” stipulations imposed by the lessors prohibit drilling at a legal location, are just and reasonable under the circumstances.

4. The elimination of any offset limitations as between wells upon the same leasehold, and the suspension of Utah Admin. Code Rules R649-3-10 and R649-3-11 (1) and (2) as applicable to each leasehold, within the Hatch lands, with the provisos that:

- (a) no well may be directionally drilled if any portion of a 460-foot radius along the projected well intersects with a lease boundary without approval of the Division or Board in accordance with Utah Admin. Code Rules R649-3-10 and R649-3-11(1) and (2); and
- (b) the operator provides to the Division a plat or sketch showing the distance to the drilling unit boundary and the target location within the Subject Formations with any application for permit to drill filed for a well to be directionally drilled,

are just and reasonable under the circumstances.

5. Declaring that all existing wells located on the Hatch Lands and producing gas and associated oil and hydrocarbons from the Subject Formations are authorized and deemed to be at

lawful locations, notwithstanding the relief granted hereby, is necessary to avoid inconsistency with the existing 179-13 Order and wells previously drilled in reliance upon Utah Admin. Code Rule R649-3-2, and is just and reasonable under the circumstances.

6. Although correlations may be drawn from other areas, the lack of data specifically relating to the Hatch Lands from wells drilled on less than a 40-acre density requires additional reporting requirements to the Division and Board to determine the continued appropriateness of development on a 10-acre density pattern as to said lands.

7. KMG has sustained its burden of proof, demonstrated good cause, and satisfied all legal requirements for the granting of the Request.

8. The relief granted hereby will result in the orderly development and greatest recovery of gas and associated oil and hydrocarbons from the Subject Formations underlying the Hatch Lands, prevent waste and adequately protect the correlative rights of all affected parties.

### **ORDER**

Based upon the Request, testimony and evidence submitted, and the findings of fact and conclusions of law stated above, the Board hereby orders:

1. The Request in this cause is granted.
2. The 174-1 Order, as modified by the 173-2 Order, is hereby vacated.
3. The 179-13 Order and Utah Admin. Code Rule R649-3-2 are hereby modified to allow the drilling of additional wells on the Hatch Lands to achieve the equivalent of an approximate 10-acre well density pattern for the production of gas and associated oil and

hydrocarbons from the Subject Formations.

4. The additional wells so authorized may be located no closer than 460 feet from the exterior boundary of any lease within the Hatch Lands; provided, however, that administrative approval by the Division may be granted in accordance with Utah Admin. Code Rule R649-3-3 for exception well locations for topographical, geological, environmental, and archaeological considerations and when “no surface occupancy” stipulations imposed by the lessors prohibit drilling at a legal location, without the necessity of a full hearing before the Board.

5. Any offset limitations as between wells upon the same leasehold within the Hatch Lands are hereby eliminated and Utah Admin. Code Rules R649-3-10 and R649-3-11(1) and (2), as applicable to each leasehold within the Hatch Lands, are hereby suspended; provided, however, that no well may be directionally drilled if any portion of the 460-foot radius along the projected wellbore intersects with a lease boundary without approval of the Division or Board in accordance with Utah Admin. Code Rules R649-3-3 and R649-3-11(1) and (2), and further provided that KMG or the Operator must provide to the Division a plat or sketch showing the distance to the drilling unit boundary and the target location within the Subject Formations with any application for permit to drill filed for a well to be directionally drilled.

6. All existing wells located on the Hatch Lands and producing gas and associated oil and hydrocarbons from the Subject Formations are hereby declared to be authorized and located at lawful locations, notwithstanding the consequences of the relief granted hereby.

7. KMG is to report back to the Division on the continued appropriateness of

development of the Hatch Lands on an approximate 10-acre density pattern once sufficient data from wells drilled on said lands can be gathered to substantiate the technical conclusions presented at the hearing and included in the Findings of Fact and Conclusions of Law above, but in no event later than two years from the date of entry of this Order.

8. Pursuant to Utah Admin. Code Rules R641 and Utah Code Ann. § 63G-4-204 to 208, the Board has considered and decided this matter as a formal adjudication.

9. This Order is based exclusively on evidence of record in the adjudicative proceeding or on facts officially noted, and constitutes the signed written order stating the Board's decision and the reasons for the decision, all as required by the Administrative Procedures Act, Utah Code Ann. § 63G-4-208 and Utah Administrative Code Rule R641-109.

10. Notice re: Right to Seek Judicial Review by the Utah Supreme Court or to Request Board Reconsideration: As required by Utah Code Ann. § 63G-4-208(e) - (g), the Board hereby notifies all parties in interest that they have the right to seek judicial review of this final Board Order in this formal adjudication by filing a timely appeal with the Utah Supreme Court within 30 days after the date that this Order issued. Utah Code Ann. §§ 63G-4-401(3)(a) and 403. As an alternative to seeking immediate judicial review, and not as a prerequisite to seeking judicial review, the Board also hereby notifies parties that they may elect to request that the Board reconsider this Order, which constitutes a final agency action of the Board. Utah Code Ann. § 63G-4-302, entitled, "Agency Review - Reconsideration," states:

(1)(a) Within 20 days after the date that an order is issued for which review by

the agency or by a superior agency under Section 63G-4-301 is unavailable, and if the order would otherwise constitute final agency action, any party may file a written request for reconsideration with the agency, stating the specific grounds upon which relief is requested.

(b) Unless otherwise provided by statute, the filing of the request is not a prerequisite for seeking judicial review of the order.

(2) The request for reconsideration shall be filed with the agency and one copy shall be sent by mail to each party by the person making the request.

(3)(a) The agency head, or a person designated for that purpose, shall issue a written order granting the request or denying the request.

(b) If the agency head or the person designated for that purpose does not issue an order within 20 days after the filing of the request, the request for reconsideration shall be considered to be denied.

*Id.* The Board also hereby notifies the parties that Utah Admin. Code Rule R641-110-100, which is part of a group of Board rules entitled, "Rehearing and Modification of Existing Orders," states:

Any person affected by a final order or decision of the Board may file a petition for rehearing. Unless otherwise provided, a petition for rehearing must be filed no later than the 10th day of the month following the date of signing of the final order or decision for which the rehearing is sought. A copy of such petition will be served on each other party to the proceeding no later than the 15th day of the month.

*Id.* See Utah Admin. Code Rule R641-110-200 for the required contents of a petition for Rehearing. If there is any conflict between the deadline in Utah Code Ann. § 63G-4-302 and the deadline in Utah Admin. Code Rule R641-110-100 for moving to rehear this matter, the Board hereby rules that the later of the two deadlines shall be available to any party moving to rehear



this matter. If the Board later denies a timely petition for rehearing, the party may still seek judicial review of the Order by perfecting a timely appeal with the Utah Supreme Court within 30 days thereafter.

11. The Board retains continuing jurisdiction over all the parties and over the subject matter of this cause, except to the extent said jurisdiction may be divested by the filing of a timely appeal to seek judicial review of this order by the Utah Supreme Court.

12. For all purposes, the Chairman's signature on a faxed copy of this Order shall be deemed the equivalent of a signed original.

13. This Amended Findings of Fact, Conclusions of Law and Order supersedes, replaces, and in all respects is in lieu of, the previous Findings of Fact, Conclusions of Law and Order entered by the Board in this Cause on June 12, 2008.

DATED this 17 day of JULY, 2008.

**STATE OF UTAH  
BOARD OF OIL, GAS AND MINING**

By: 

Douglas E. Johnson

103789

**FILED**

JUN 12 2008

SECRETARY, BOARD OF  
OIL, GAS & MINING

**BEFORE THE BOARD OF OIL, GAS AND MINING  
DEPARTMENT OF NATURAL RESOURCES  
STATE OF UTAH**

IN THE MATTER OF THE REQUEST FOR AGENCY ACTION OF KERR-MCGEE OIL & GAS ONSHORE LP FOR AN ORDER FORMALLY TERMINATING THE BOARD'S ORDER IN CAUSE NO. 174-1, AND MODIFYING THE BOARD'S ORDER IN CAUSE NO. 179-13 AND UTAH ADMIN. CODE RULE R649-3-2 TO PROVIDE FOR THE DRILLING OF WELLS TO ACHIEVE THE EQUIVALENT OF AN APPROXIMATE 10-ACRE WELL DENSITY PATTERN FOR THE PRODUCTION OF GAS AND ASSOCIATED OIL AND HYDROCARBONS FROM THE WASATCH FORMATION AND MESAVERDE GROUP IN PORTIONS OF SECTION 33 AND ALL OF SECTION 34, TOWNSHIP 8 SOUTH, RANGE 23 EAST, SLM, ALL OF SECTIONS 1-5, 8-17, 23-26, 35 AND 36, TOWNSHIP 9 SOUTH, RANGE 23 EAST, SLM, AND ALL OF SECTIONS 1-4, PORTIONS OF SECTIONS 7-9, AND ALL OF SECTIONS 10-23 AND 27-34, TOWNSHIP 9 SOUTH, RANGE 24 EAST, SLM, UTAH COUNTY, UTAH

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Docket No. 2008-012

Cause No. 179-15

This Cause came on for hearing before the Utah Board of Oil, Gas and Mining (the "Board") on Wednesday, May 21, 2008, at approximately 11:50 a.m. in Roosevelt, Utah.

The following Board members were present and participated at the hearing: Chairman Douglas E. Johnson, Kent R. Petersen, Robert J. Bayer, Samuel C. Quigley and Jake Y. Harouny. Board Members Jean Semborski and Ruland J. Gill, Jr. were unable to attend. The Board was represented by Michael S. Johnson, Esq., Assistant Attorney General.

Testifying on behalf of Petitioner Kerr-McGee Oil & Gas Onshore LP ("KMG") were Chris Latimer – Senior Landman, Robert Single – Geologist, and Scott Gamble – Senior

Reservoir Engineer. Frederick M. MacDonald, Esq., of and for Beatty & Wozniak, P.C., appeared as attorney for KMG.

Testifying on behalf of the Division of Oil, Gas and Mining (the "Division") was Bradley G. Hill – Oil & Gas Permitting Manager. James P. Allen, Esq., Assistant Attorney General, appeared as attorney on behalf of the Division. The Division expressed its support for the granting of KMG's Request for Agency Action dated April 10, 2008 (the "Request") at the conclusion of its presentation, with KMG's stipulation that the requirements set forth in Utah Admin. Code Rule R649-3-11(3) would not be suspended and remain applicable.

At the conclusion of KMG's and the Division's presentations, Matt Baker, Petroleum Engineer, Vernal District Office, United States Bureau of Land Management ("BLM"), expressed the BLM's support for the granting of the Request but indicated that the BLM would not support surface disturbance on less than 40 acres. Erin Osborne, Geologist, Questar Exploration and Production Company ("QEP"), a working interest/operating rights owner within the area affected by the Request and operator of wells in and around said area, also made a statement indicating QEP's wells confirmed laterally discontinuous and compartmentalized sand bodies throughout the Wasatch and Mesaverde formations even when drilled on a 20-acre density pattern.

Thurston Energy, LLC, Forest Oil Corporation, EOG Resources, Inc. and EnCana Oil & Gas (USA) Inc., all working interest/operating rights owners within the area affected by

the Request, filed letters with the Board in support of the granting of the Request.

No other party filed a response to the Request and no other party appeared or participated at the hearing.

The Board, having considered the testimony presented and the exhibits received into evidence at the hearing, being fully advised, and for good cause, hereby makes the following findings of fact, conclusions of law and order.

### **FINDINGS OF FACT**

1. KMG is a Delaware limited partnership in good standing and authorized to conduct business in the State of Utah. It is duly bonded with all appropriate State of Utah and Federal agencies relative to this cause.

2. By Order entered in Cause No. 174-1 on February 22, 1978 (the "174-1 Order"), the Board established 320-acre lay-down (horizontal) drilling units for the production of gas and associated hydrocarbons from the Wasatch-Mesaverde Formations, defined as:

that interval below the stratigraphic equivalent of 4,397 feet down to and including the stratigraphic equivalent of 8,568 feet, as shown on the dual induction-laterlog of the Chorney Oil Company and Pacific Gas Transmission Company South Redwash Federal 1-18 located in the NW $\frac{1}{4}$ NE $\frac{1}{4}$  of Sec. 18, T. 9 S., R. 24 E., S.L.M., Uintah County, Utah,

for Sections 13-15 inclusive of Township 9 South, Range 23 East, SLM, Uintah County, Utah. However, the Board expressly stated that the establishment of said drilling units “shall be for a temporary period of one year from the entry” of said Order.

3. Notwithstanding its stated temporary nature, the Board and the Division still have the 174-1 Order indexed as currently applicable against said Section 13-15 lands.

4. By Order entered in Cause No. 179-13 on March 28, 2007 (the “179-13 Order”), the Board modified Utah Admin. Code Rule R649-3-2(1), as relating to the production of gas from the Wasatch Formation and Mesaverde Group, defined as:

all depths from the top of the Wasatch formation, found at the stratigraphic equivalent of 4,034 feet, to the base of the Castlegate, a member of the Mesaverde group, found at the stratigraphic equivalent of 7,897 feet, as found in the 3ML-9-9-24 well located in the NE $\frac{1}{4}$ NW $\frac{1}{4}$  of Section 9, Township 9 South, Range 24 East, SLM, Uintah County, Utah,

(the “Subject Formations”), as to the following Uintah County, Utah lands:

Township 9 South, Range 23 East, SLM

Section 10: N $\frac{1}{2}$ , N $\frac{1}{2}$ SW $\frac{1}{4}$ , SE $\frac{1}{4}$   
Section 12: E $\frac{1}{2}$ NE $\frac{1}{4}$   
Section 17: W $\frac{1}{2}$ E $\frac{1}{2}$ , W $\frac{1}{2}$   
Section 26: All,

to allow the drilling of wells on an approximate 20-acre density pattern subject to the limitations that no well may be located, absent an exception location approval by the Division in accordance with Utah Admin. Code Rule R649-3-3, closer than 460 feet from: (1) any

well drilled to or capable of producing gas from the Subject Formations; and (2) the boundaries of the lands subject to said Order. In addition, the Board required that a plat or map, illustrating that a well proposed in accordance with said Order satisfies said location restrictions, be submitted to the Division with any application for permit to drill.

5. The following Uintah County, Utah lands are currently not subject to any orders of the Board and therefore remain subject to the location requirements of Utah Admin.

Code Rule R649-3-2:

Township 8 South, Range 23 East, SLM

Section 33: All except SW $\frac{1}{4}$ SW $\frac{1}{4}$   
Section 34: All

Township 9 South, Range 23 East, SLM

Section 1: Lots 1 (36.01), 2 (36.04), 3 (36.06)  
and 4 (36.09), S $\frac{1}{2}$ N $\frac{1}{2}$ , S $\frac{1}{2}$  [All]  
Section 2: Lots 1 (36.11), 2 (36.14), 3 (36.16)  
and 4 (36.19), S $\frac{1}{2}$ N $\frac{1}{2}$ , S $\frac{1}{2}$  [All]  
Section 3: Lots 1 (36.20), 2 (36.18), 3 (36.18)  
and 4 (36.16), S $\frac{1}{2}$ N $\frac{1}{2}$ , S $\frac{1}{2}$  [All]  
Section 4: Lots 1 (36.15), 2 (36.14), 3 (36.12)  
and 4 (36.11), S $\frac{1}{2}$ N $\frac{1}{2}$ , S $\frac{1}{2}$  [All]  
Section 5: Lots 1 (36.11), 2 (36.14), 3 (36.16)  
and 4 (36.19), S $\frac{1}{2}$ N $\frac{1}{2}$ , S $\frac{1}{2}$  [All]  
Section 8: All  
Section 9: All  
Section 10: S $\frac{1}{2}$ SW $\frac{1}{4}$   
Section 11: All  
Section 12: W $\frac{1}{2}$ NE $\frac{1}{4}$ , NW $\frac{1}{4}$ , S $\frac{1}{2}$   
Section 13: All

Section 14: All  
Section 15: All  
Section 16: All  
Section 17: E $\frac{1}{2}$ E $\frac{1}{2}$   
Section 23: All  
Section 24: All  
Section 25: All  
Section 35: All  
Section 36: All

Township 9 South, Range 24 East, SLM

Section 1: Lots 1 (36.04), 2 (36.13), 3 (36.21), 4 (36.30) and 5 (33.83), S $\frac{1}{2}$ N $\frac{1}{2}$ , SE $\frac{1}{4}$ , SE $\frac{1}{4}$ SW $\frac{1}{4}$  and patented mining claims [All]  
Section 2: Lots 1 (36.34), 2 (36.35), 3 (36.35), 4 (36.36), 5 (45.13), 6 (25.30), 7 (20.86), 8 (37.51), 9 (55.50), 10 (14.60), 11 (32.63) and 12 (49.54), SE $\frac{1}{4}$ NW $\frac{1}{4}$ , S $\frac{1}{2}$ NE $\frac{1}{4}$ , SW $\frac{1}{4}$ SW $\frac{1}{4}$  and patented mining claims [All]  
Section 3: Lots 1 (36.36), 2 (36.37), 3 (36.37), 4 (36.38), 5 (39.50), 10 (11.55), 11 (19.31), 12 (26.45) and 13 (44.24), SW $\frac{1}{4}$ NW $\frac{1}{4}$ , SW $\frac{1}{4}$ , W $\frac{1}{2}$ SE $\frac{1}{4}$ , SE $\frac{1}{4}$ SE $\frac{1}{4}$  and patented mining claims [All]  
Section 4: Lots 1 (36.36), 2 (36.31), 3 (36.27) and 4 (36.22), S $\frac{1}{2}$ N $\frac{1}{2}$ , S $\frac{1}{2}$  [All]  
Section 7: Lots 3 (38.04) and 4 (38.15), E $\frac{1}{2}$ SW $\frac{1}{4}$ , SE $\frac{1}{4}$  [S $\frac{1}{2}$ ]  
Section 8: W $\frac{1}{2}$ SW $\frac{1}{4}$   
Section 9: E $\frac{1}{2}$   
Section 10: All  
Section 11: All  
Section 12: Lots 1 (47.27), 2 (29.44), 3 (13.69), 4 (40.76), 5 (22.72), 6 (17) and 7 (34.81), S $\frac{1}{2}$ NW $\frac{1}{4}$ , S $\frac{1}{2}$  and patented mining claims [All]  
Section 13: All  
Section 14: All

- Section 15: Lots 1 (39.64), 2 (38.20), 3 (22.20) and 4 (39.05), N $\frac{1}{2}$ , W $\frac{1}{2}$ SW $\frac{1}{4}$ , N $\frac{1}{2}$ SE $\frac{1}{4}$  and patented mining claims [All]
- Section 16: All
- Section 17: All
- Section 18: Lots 1 (38.27), 2 (38.41), 3 (38.55) and 4 (38.59), E $\frac{1}{2}$ W $\frac{1}{2}$ , E $\frac{1}{2}$  [All]
- Section 19: Lots 1 (38.72), 2 (38.62), 3 (38.54) and 4 (38.44), E $\frac{1}{2}$ W $\frac{1}{2}$ , E $\frac{1}{2}$  [All]
- Section 20: All
- Section 21: All
- Section 22: Lots 1 (4.91), 2 (25.85) and 3 (39.64), S $\frac{1}{2}$ NE $\frac{1}{4}$ , NW $\frac{1}{4}$ , S $\frac{1}{2}$  and patented mining claims [All]
- Section 23: Lots 1 (43.34), 2 (23.92), 3 (36.63), 4 (23.54), 5 (23.71), 6 (44.74), 7 (16.41), 8 (20.24), 9 (15.96), 10 (33.11) and 11 (38.72), N $\frac{1}{2}$ NE $\frac{1}{4}$ , W $\frac{1}{2}$ SW $\frac{1}{4}$ , SE $\frac{1}{4}$ SW $\frac{1}{4}$ , SW $\frac{1}{4}$ SE $\frac{1}{4}$  and patented mining claims [All]
- Section 27: All
- Section 28: All
- Section 29: All
- Section 30: Lots 1 (38.44), 2 (38.51), 3 (38.59) and 4 (38.66), E $\frac{1}{2}$ W $\frac{1}{2}$ , E $\frac{1}{2}$  [All]
- Section 31: Lots 1 (38.71), 2 (38.74), 3 (38.76) and 4 (38.79), E $\frac{1}{2}$ W $\frac{1}{2}$ , E $\frac{1}{2}$  [All]
- Section 32: Lot 1 (39.10), N $\frac{1}{2}$ NE $\frac{1}{4}$ , SW $\frac{1}{4}$ NE $\frac{1}{4}$ , NW $\frac{1}{4}$ , S $\frac{1}{2}$  and patented mining claims [All]
- Section 33: Lots 1 (44.05), 2 (26.93), 3 (43.37), 4 (26.10), 5 (20.90), 6 (37.34), 7 (32.92) and 8 (49.39), NE $\frac{1}{4}$ , N $\frac{1}{2}$ NW $\frac{1}{4}$ , S $\frac{1}{2}$ SW $\frac{1}{4}$  and patented mining claims [All]
- Section 34: Lots 1 (53.65), 2 (18.92), 3 (29.67) and 4 (39.82), N $\frac{1}{2}$ , NE $\frac{1}{4}$ SW $\frac{1}{4}$ , N $\frac{1}{2}$ SE $\frac{1}{4}$ , SE $\frac{1}{4}$ SE $\frac{1}{4}$  and patented mining claims [All]



Under this Rule, each well is to be located within a 400-foot “window” surrounding the center of each governmental quarter-quarter section, or a substantially equivalent lot or tract or combination of lots or tracts, and no well may be located closer than 920 feet from an existing well drilling to or capable of producing from the same pool. The practical consequence of this location pattern is to allow a maximum of four (4) wells per quarter section and 16 wells per section, *i.e.* the equivalent of an approximate 40-acre drilling density. The above described lands, together with the lands subject to the 174-1 and 179-13 Orders, are hereinafter collectively referred to as the “Hatch Lands.”

6. The gas and associated oil and hydrocarbons underlying the Hatch Lands are primarily under Federal ownership, with scattered State of Utah and fee (private) ownership.

All of the Hatch Lands appear to be leased except as follows:

Township 9 South, Range 24 East, SLM

Section 1:	Lots 1-5, S $\frac{1}{2}$ N $\frac{1}{2}$ , N $\frac{1}{2}$ S $\frac{1}{2}$ , SE $\frac{1}{4}$ SW $\frac{1}{4}$ and SW $\frac{1}{4}$ SE $\frac{1}{4}$
Section 4:	Lots 3 and 4, S $\frac{1}{2}$ N $\frac{1}{2}$ , N $\frac{1}{2}$ SE $\frac{1}{4}$ and SE $\frac{1}{4}$ SE $\frac{1}{4}$
Section 10:	NW $\frac{1}{4}$
Section 14:	S $\frac{1}{2}$ , NE $\frac{1}{4}$ and SW $\frac{1}{4}$ NW $\frac{1}{4}$
Section 15:	SW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$
Section 22:	Lot 1

KMG is a lessee and operating rights owner in approximately 30% of these lands.

7. There apparently are no communitization agreements or other contractual agreements entered into in accordance with the 174-1 Order allocating production from the Subject Formations on any basis other than a leasehold basis.

8. In Paragraph 6 of the Findings of Fact of the 179-13 Order, the Board expressly found that the Subject Formations:

...are comprised of very tight sands in narrow, sinuous channels, ranging from 5 to 25 feet thick, which are shaley and have low porosity (averaging less than 9% of the total rock volume) and permeability (between .005 and 5 md). Based on well log correlation, surface outcrops and the study of modern fluvial environments, the sands appear to be less than 250 feet wide. Additional evaluation of fracture orientation, production logs, net pay distribution and pressure tests also indicate that wells drilled based on a 40-acre density pattern are not intersecting portions of the productive sands, and without a tighter density pattern, there is a high possibility gas reserves in the [relevant lands] will be left in the ground unrecovered.

Similar findings concerning the Subject Formations were made by the Board in its Orders entered in Cause No. 179-11 on May 19, 2005 and in Cause No. 179-12 on July 5, 2005 as relating to the Bonanza and Southman Canyon areas located to the southwest of the Hatch Lands. Logs from existing wells located on the Hatch Lands reflect that the sand bodies of the Subject Formations are likewise discontinuous. Most, if not all, of these wells, however, have been drilled on a 40-acre density pattern.

9. Data gathered from wells within the vicinity of the Hatch Lands has shown and/or confirmed:

- a) The sand bodies are numerous, small and discontinuous. Wells drilled even as close as 505 feet apart do not intersect all of the same sand bodies and therefore reflect great lateral variability in the productive sandstones of the Subject Formations. Surface outcrop studies indicate that the average apparent width of the sand bodies is 637 feet. Theoretically, wells on a 10-acre density pattern would be located 660 feet apart;
- b) The sand bodies contain complex internal structures, many of which are barriers to flow, and are tight with permeabilities in the micro-darcy range;
- c) Consistent fracture orientation in the area allows wells to be placed in a pattern so as to minimize potential interference; and
- d) Diagnostic Fluid Injection Tests (DFIT) conducted on many of the wells detected minimal, if any, depletion even though the tests were designed to seek out intervals with the most likely chance of seeing depletion.

These characteristics would appear to extend across and be applicable to the Hatch Lands as well.

10. Volumetric estimations reflect a 76% recovery efficiency on a 10-acre density pattern for the Subject Formations underlying the Hatch Lands.

11. Economic Sensitivity to Reserve analysis reflects that drilling wells on a 10-acre density pattern for the Subject Formations is economic.

12. There is a likelihood that, if development of the Subject Formations underlying the Hatch Lands does not occur on an approximate 10-acre well density pattern, valuable resources will not be recovered.

13. The Board recognizes that it has previously authorized development of the Subject Formations in areas nearby the Hatch Lands, in addition to the lands subject to the 179-13 Order, on a 20-acre density pattern, that it is concurrently authorizing development of substantially all of the Subject Formations in the Bonanza and Southman Canyon areas located directly southwest of the Hatch Lands, on a 10-acre density pattern, and that the Colorado Oil and Gas Conservation Commission has authorized development of the Williams Fork Formation, analogous to the Mesaverde Group as defined above, in the Piceance Basin of Colorado on a 10-acre density pattern, for similar reasons.

14. A copy of the Request was mailed, postage pre-paid, certified with return receipt requested, and properly addressed, to all working interest/operating rights owners and operators within the Hatch Lands, and to all royalty and overriding royalty interest owners within Sections 13-15 of Township 9 South, Range 25 East, SLM, to their last addresses disclosed by the appropriate Federal, Indian, State and County realty records, and to the governmental agencies having jurisdiction over the minerals underlying said lands.

15. Notice of the filing of the Request and of the hearing thereon was duly published in the Salt Lake Tribune and Deseret Morning News on April 29, 2008, and in the Vernal Express on April 30, 2008.

16. The vote of the Board members present in the hearing and participating in this Cause was unanimous in favor of granting the Request.

## CONCLUSIONS OF LAW

1. Due and regular notice of the time, place and purpose of the hearing was properly given to all parties whose legally protected interests are affected by the Request in the form and manner as required by law and the rules and regulations of the Board and Division.

2. The Board has jurisdiction over all matter covered by the Request and all interested parties therein, and has the power and authority to render the order herein set forth pursuant to Utah Code Ann. §§ 40-6-5(3)(b) and 40-6-6(6) and Utah Admin. Code Rule R649-2-1.

3. The 174-1 Order terminated pursuant to its own terms on February 22, 1979 and since that date has had no force and effect.

4. The modification of the 179-13 Order and Utah Admin. Code Rule R649-3-2 to allow the drilling of additional wells on the Hatch Lands to achieve the equivalent of an approximate 10-acre well density pattern for the production of gas and associated oil and hydrocarbons from the Subject Formations, with the proviso that the additional wells so authorized may be located no closer than 460 feet from the exterior boundary of any lease within said lands unless an exception is granted by the Division in accordance with Utah Admin. Code Rule R649-3-3 for topographical, geological, environmental, and archeological considerations and when "no surface occupancy" stipulations imposed by the lessors prohibit

drilling at a legal location, is just and reasonable under the circumstances.

5. The elimination of any offset limitations as between wells upon the same leasehold, and the suspension of Utah Admin. Code Rules R649-3-10 and R649-3-11 (1) and (2) as applicable to each leasehold, within the Hatch lands, with the provisos that:

- (a) no well may be directionally drilled if any portion of a 460-foot radius along the projected well intersects with a lease boundary without approval of the Division or Board in accordance with Utah Admin. Code Rules R649-3-10 and R649-3-11(1) and (2); and
- (b) the operator provides to the Division a plat or sketch showing the distance to the drilling unit boundary and the target location within the Subject Formations with any application for permit to drill filed for a well to be directionally drilled,

are just and reasonable under the circumstances.

6. Declaring that all existing wells located on the Hatch Lands and producing gas and associated oil and hydrocarbons from the Subject Formations are authorized and deemed to be at lawful locations, notwithstanding the relief granted hereby, is necessary to avoid inconsistency with the existing 179-13 Order and wells previously drilled in reliance upon Utah Admin. Code Rule R649-3-2, and is just and reasonable under the circumstances.

7. Although correlations may be drawn from other areas, the lack of data specifically relating to the Hatch Lands from wells drilled on less than a 40-acre density requires additional reporting requirements to the Division and Board to determine the continued appropriateness of development on a 10-acre density pattern as to said lands.

8. KMG has sustained its burden of proof, demonstrated good cause, and satisfied all legal requirements for the granting of the Request.

9. The relief granted hereby will result in the orderly development and greatest recovery of gas and associated oil and hydrocarbons from the Subject Formations underlying the Hatch Lands, prevent waste and adequately protect the correlative rights of all affected parties.

### **ORDER**

Based upon the Request, testimony and evidence submitted, and the findings of fact and conclusions of law stated above, the Board hereby orders:

1. The Request in this cause is granted.
2. The 174-1 Order is formally declared to have terminated by its own terms on February 22, 1979, and the Board's Secretary and the Division are hereby directed to correct their respective records to so reflect.
3. The 179-13 Order and Utah Admin. Code Rule R649-3-2 are hereby modified to allow the drilling of additional wells on the Hatch Lands to achieve the equivalent of an approximate 10-acre well density pattern for the production of gas and associated oil and hydrocarbons from the Subject Formations.
4. The additional wells so authorized may be located no closer than 460 feet from the exterior boundary of any lease within the Hatch Lands; provided, however, that

administrative approval by the Division may be granted in accordance with Utah Admin. Code Rule R649-3-3 for exception well locations for topographical, geological, environmental, and archaeological considerations and when “no surface occupancy” stipulations imposed by the lessors prohibit drilling at a legal location, without the necessity of a full hearing before the Board.

5. Any offset limitations as between wells upon the same leasehold within the Hatch Lands are hereby eliminated and Utah Admin. Code Rules R649-3-10 and R649-3-11(1) and (2), as applicable to each leasehold within the Hatch Lands, are hereby suspended; provided, however, that no well may be directionally drilled if any portion of the 460-foot radius along the projected wellbore intersects with a lease boundary without approval of the Division or Board in accordance with Utah Admin. Code Rules R649-3-3 and R649-3-11(1) and (2), and further provided that KMG or the Operator must provide to the Division a plat or sketch showing the distance to the drilling unit boundary and the target location within the Subject Formations with any application for permit to drill filed for a well to be directionally drilled.

6. All existing wells located on the Hatch Lands and producing gas and associated oil and hydrocarbons from the Subject Formations are hereby declared to be authorized and located at lawful locations, notwithstanding the consequences of the relief granted hereby.

7. KMG is to report back to the Division on the continued appropriateness of



development of the Hatch Lands on an approximate 10-acre density pattern once sufficient data from wells drilled on said lands can be gathered to substantiate the technical conclusions presented at the hearing and included in the Findings of Fact and Conclusions of Law above, but in no event later than two years from the date of entry of this Order.

8. Pursuant to Utah Admin. Code Rules R641 and Utah Code Ann. § 63G-4-204 to 208, the Board has considered and decided this matter as a formal adjudication.

9. This Order is based exclusively on evidence of record in the adjudicative proceeding or on facts officially noted, and constitutes the signed written order stating the Board's decision and the reasons for the decision, all as required by the Administrative Procedures Act, Utah Code Ann. § 63G-4-208 and Utah Administrative Code Rule R641-109.

10. Notice re: Right to Seek Judicial Review by the Utah Supreme Court or to Request Board Reconsideration: As required by Utah Code Ann. § 63G-4-208(e) - (g), the Board hereby notifies all parties in interest that they have the right to seek judicial review of this final Board Order in this formal adjudication by filing a timely appeal with the Utah Supreme Court within 30 days after the date that this Order issued. Utah Code Ann. §§ 63G-4-401(3)(a) and 403. As an alternative to seeking immediate judicial review, and not as a prerequisite to seeking judicial review, the Board also hereby notifies parties that they may elect to request that the Board reconsider this Order, which constitutes a final agency action

of the Board. Utah Code Ann. § 63G-4-302, entitled, “Agency Review - Reconsideration,”

states:

(1)(a) Within 20 days after the date that an order is issued for which review by the agency or by a superior agency under Section 63G-4-301 is unavailable, and if the order would otherwise constitute final agency action, any party may file a written request for reconsideration with the agency, stating the specific grounds upon which relief is requested.

(b) Unless otherwise provided by statute, the filing of the request is not a prerequisite for seeking judicial review of the order.

(2) The request for reconsideration shall be filed with the agency and one copy shall be sent by mail to each party by the person making the request.

(3)(a) The agency head, or a person designated for that purpose, shall issue a written order granting the request or denying the request.

(b) If the agency head or the person designated for that purpose does not issue an order within 20 days after the filing of the request, the request for reconsideration shall be considered to be denied.

*Id.* The Board also hereby notifies the parties that Utah Admin. Code Rule R641-110-100, which is part of a group of Board rules entitled, “Rehearing and Modification of Existing Orders,” states:

Any person affected by a final order or decision of the Board may file a petition for rehearing. Unless otherwise provided, a petition for rehearing must be filed no later than the 10th day of the month following the date of signing of the final order or decision for which the rehearing is sought. A copy of such petition will be served on each other party to the proceeding no later than the 15th day of the month.

*Id.* See Utah Admin. Code Rule R641-110-200 for the required contents of a petition for

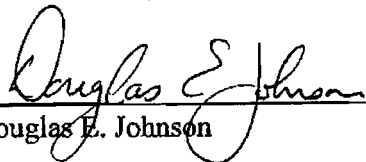
Rehearing. If there is any conflict between the deadline in Utah Code Ann. § 63G-4-302 and the deadline in Utah Admin. Code Rule R641-110-100 for moving to rehear this matter, the Board hereby rules that the later of the two deadlines shall be available to any party moving to rehear this matter. If the Board later denies a timely petition for rehearing, the party may still seek judicial review of the Order by perfecting a timely appeal with the Utah Supreme Court within 30 days thereafter.

11. The Board retains continuing jurisdiction over all the parties and over the subject matter of this cause, except to the extent said jurisdiction may be divested by the filing of a timely appeal to seek judicial review of this order by the Utah Supreme Court.

12. For all purposes, the Chairman's signature on a faxed copy of this Order shall be deemed the equivalent of a signed original.

DATED this 12 day of JUNE, 2008.

**STATE OF UTAH  
BOARD OF OIL, GAS AND MINING**

By:   
Douglas E. Johnson

**CERTIFICATE OF SERVICE**

I hereby certify that I caused a true and correct copy of the foregoing "Findings of Fact, Conclusions of Law and Order" for Docket No. 2008-012, Cause No. 179-15 to be mailed, postage prepaid, on this 13th day of June, 2008, to the following:

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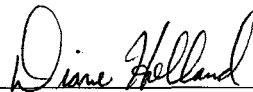
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