

**STATE OF INDIANA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS**

ORDER OF INTEGRATION

Re: Application of Continental Resources, Inc.) Case No.: DOG-16-2008
For the integration of oil and gas interests owned by)
Kathryn Day Culley into the 140 acre Nation Road)
Waterflood Unit located in portions of Sections 26, 27
and 34, Township 6 South, Range 13 West, Posey
County, Indiana

As provided in Indiana Code 14-37-3-16, an informal hearing was held in this matter on November 25, 2008, beginning at 10:00 AM (Central), before the Indiana Department of Natural Resources (IDNR), Division of Oil and Gas (Division), at the Evansville Office of the Division of Oil and Gas located at the Angel Mounds State Historic Site, 8215 Pollack Avenue, Evansville, IN 47715. The purpose of the informal hearing was to consider the Petition for Integration of Interests (Application) for the above waterflood unit filed by Continental Resources, Inc., hereinafter referred to as "Applicant".

The Application was filed by the Applicant in order that the interests of Kathryn Day Culley, 394 Savah Road, Mt. Vernon, IN 47620, be incorporated into the Nation Road Waterflood Unit. Despite repeated attempts by Applicant to secure agreement from Kathryn Day Culley, her interests were unable to be secured.

Having reviewed the entire record in this matter, and being duly advised, the Director of the Division of Oil and Gas (Director) makes the following Findings of Fact, Conclusions of Law and Order of Integration:

FINDINGS OF FACT

1. Applicant is a corporation whose principal place of business is 302 North Independence, Enid, OK 73702. Applicant is authorized to transact business in the State of Indiana and its agent for service of process is CT Corporation System, 208 South LaSalle Street, Chicago, Illinois 60604.
2. The Applicant represents that it is the designated operator of primary oil and gas production operations on the following properties as identified in EXHIBIT A of the Application:
 - a. Tract 1: Culley Lease – Oil and Gas Lease from Wayne L. Culley, Trustee of the Wayne L. Culley Living Trust, Kathryn D. Culley, Joyce A. Culley and Jane G. Binaldi, as Lessors, to Parker Exploration & Production, LLC, as Lessee, dated July 14, 2004 and recorded as Document 200500058 in the Office of the Recorder of Posey County, Indiana.
 - b. Tract 2: Allyn Lease – Oil and Gas Lease from L. David Allyn and Donna M. Allyn, as Lessors, to Continental Resources of Illinois, Inc., as Lessee, dated October 15, 2004 and recorded as Document 200500087 in the Office of the Recorder of Posey County, Indiana.

- c. Tract 3: Allyn Community – That certain pooled unit created by Declaration of Pooled Unit, effective December 22, 2005, executed by Continental Resources of Illinois, Inc., recorded as Document 200600087 in the Office of the Recorder of Posey County, Indiana, which declaration pooled the following leases:
 - i. L. David Allyn et al. – Doc. 200500058
 - ii. Allyn G. Simpson et al. – Doc. 200500521
 - iii. Emily A. Moore – Doc. 200500584
3. The Applicant has drilled and completed certain wells on the lands which are the subject of the Application and has produced those wells by primary production. Applicant believes that such drilling and primary production has resulted in the delineation of a pool suitable for secondary recovery within the meaning of IC 14-37-9-1.
4. The Division finds that the lands subject to the Application are suitable for secondary recovery from the Renault sand.
5. Applicant has proposed the voluntary establishment of a waterflood unit agreement covering the secondary recovery pool to be known as the Nation Road Waterflood Unit, hereinafter “Unit”.
6. Applicant has obtained voluntary agreement for the integration of interests within the Unit as follows:
 - a. Tract 1: Culley Lease – 100% of the working interest owners, the owners of 81.8% of the overriding royalty interest, and 75% of the royalty interest owners.
 - b. Tract 2: Allyn Lease – 100% of the working interest owners, 100% of the overriding royalty interest owners, and 100% of the royalty interest owners.
 - c. Tract 3: Allyn Community -100% of the working interest owners, 100% of the overriding royalty interest owners, and 100% of the royalty interest owners.
7. The interests of Kathryn D. Culley in the Culley Lease consist of a royalty interest of 0.03125000 and an overriding royalty interest of 0.01367188 which, when combined, represent a total interest of 0.04492188 in the primary production of oil and gas from the Culley Lease.
8. The proposed 140 acre Unit incorporates the following acreages from within each individual lease area as follows:
 - a. Tract 1: Culley Lease – 80 acres, more or less
 - b. Tract 2: Allyn Lease – 40 acres, more or less
 - c. Tract 3: Allyn Community – 20 acres, more or less
9. Except for the interests of Kathryn D. Culley, all other owners of oil and gas interests within the proposed 140 acre Unit have voluntarily agreed to integrate their interests in the production that will result from secondary recovery operations within the unit according to tract participation factors proposed by the Applicant.
10. The Applicant represents that it utilized generally accepted petroleum engineering principles when it developed proposed tract participation factors regarding the allocation of production from secondary production operations to be conducted within the Unit. The specific factors utilized for each of the lease areas and their respective weighting factors were as follows:

- a. Number of flood useable wells (Productive Renault sand wells on each lease) – 10%
 - b. Production potential (2007 annual production from each lease) – 30%
 - c. Cumulative production (total production from each lease through 2007) – 30%
 - d. Renault sand hydrocarbon pore volume (in acre feet) – 30%
11. An application of the specific factors proposed by the Applicant results in tract participation factors for the various tracts as follows:
 - a. Tract 1: Cully Lease – 0.28368
 - b. Tract 2: Allyn Lease – 0.58362
 - c. Tract 3: Allyn Community – 0.13270
12. Despite due diligence and good faith efforts, the Applicant was not able to obtain consent from Kathryn D. Culley for the proposed tract participation factor of 0.28368 to be assigned to the Cully Lease portion of the Unit.
13. IC 14-37-9-1(b) requires that, where owners of separate tracts within a pool or part of a pool suitable for secondary recovery methods do not agree to integrate their interests, the IDNR shall require the owners to integrate their interests in order to prevent waste or the drilling of unnecessary wells and to develop the land as a drilling unit.
14. IC 14-37-9-2 requires that an order for integration must be based upon reasonable terms that give the owner of each tract an equitable share of oil and natural gas in the unit or pool.
15. The Petition filed in this matter by the Applicant seeks, pursuant to IC 14-37-9, the issuance of an integration order whereby the interests of all owners of separate tracts within the proposed waterflood unit are integrated and the combined leases developed as a consolidated production unit.
16. The Applicant attached the following documents to its Application:

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| Exhibit 1 | Oil and Gas Lease executed by Kathryn Day Culley, July 14, 2004 |
| Exhibit 2 | Nation Road Waterflood Unit Royalty Unitization Agreement |
| Exhibit 3 | Map of Proposed Unit Area and Table of Ownership Participation Calculations |
| Exhibit 4 | Contact Report |
17. On October 17, 2008, the Division sent to Kathryn D. Culley, by first class mail as provided in 312 IAC 16-2-3, a written notice of the date, time, and place of the informal hearing scheduled to be held in Evansville, IN on November 6, 2008.
18. By letter dated October 28, 2008, Charles Compton, newly appointed counsel for Kathryn D. Culley, requested that the informal hearing scheduled for November 6, 2008, be postponed to allow sufficient time for a full review of the petition.
19. Request to postpone the informal hearing was granted and the informal hearing rescheduled for November 25, 2008, after giving all parties notice by first class mail as provided in 312 IAC 16-2-3.
20. The following persons were present at the informal hearing held at 10:00 AM (Central) in the Evansville Office of the Division of Oil and Gas located at the Angel Mounds State Historic Site, 8215 Pollack Avenue, Evansville, IN 47715, on November 25, 2008:

| <u>Person</u> | <u>Representing</u> |
|-------------------|-----------------------------|
| Kathryn Culley | Self |
| John Lewis | Kathryn Culley |
| Charles Compton | Kathryn Culley |
| Robert Piggott | Kathryn Culley |
| Richard Straeter | Continental Resources, Inc. |
| Stephen Link | Continental Resources, Inc. |
| Kevin York | IDNR |
| Tim Higginbottom | IDNR |
| Mona Nemecek | IDNR |
| Herschel McDivitt | IDNR |

21. At the informal hearing, persons in attendance were provided with an opportunity to present information which they believed was relevant to the matter at hand, that being whether or not the participation factors proposed by the Applicant were based upon reasonable terms giving each owner an equitable share of the oil and natural gas from the proposed Unit.
22. During the informal hearing, Kathryn Culley provided the following documents for the record:
- a. A table containing a comparison of the Applicants tract participation factors and one with participation factors intended to contain corrected information which Kathryn Culley believed were not taken into account by the Applicant.
 - b. A printout showing current production information on the respective leases.
23. During the informal hearing, Applicant provided the following documents for the record:
- a. A listing of well stimulation treatments for 6 wells within the Unit.
 - b. A table summarizing the formation thickness, porosity, and other data based on logs of 6 wells within the Unit.
 - c. Geophysical logs for wells within the Unit.
 - d. Copies of leases executed by other oil and gas owners within the Unit.
24. At the conclusion of the informal hearing, and after the parties had been afforded sufficient opportunity to hear and respond verbally to the information provided by the other party, counsel for each party was instructed to prepare and submit a final written summary of their client's final positions with respect to the participation factors proposed by the Applicant. Parties were notified at the informal hearing that the Director would make a final determination in this matter based primarily on the information which is provided in the final position statements. Final position statements along with supporting documentation were to be provided to the Division by Friday, December 22, 2008 with copies also provided to the other party.

25. Stephen Link, counsel for the Applicant, distributed copies of the Petitioner's "Post Hearing Brief" on December 22, 2008. Applicant asserts that the tract participation factors presented in the original Application continue to be valid and that it has met the statutory requirement that the distribution of production from the Unit be based on reasonable terms giving the owner of each tract an equitable share in the production from the Unit. In support of their position that the terms are reasonable and equitable, among other factors, is evidence that 100% of the owners of interest in the Tract 2 -Allyn Lease and Tract 3 - Allyn Community parcels have agreed with the tract participation factors. Additionally, owners of 95.5% of the interests in oil and gas from Tract 1 – Culley Lease have also voluntarily agreed with the tract participation factors.
26. Charles Compton, counsel for Kathryn Culley, distributed copies of "Post Hearing Position Statement of Kathryn Day Culley" on December 22, 2008. Kathryn Culley continues to assert that the tract participation factors proposed by the Applicant do not represent a reasonable and equitable allocation of production from the Unit for the following reasons:
- a. The appropriate allocation of royalty to Ms. Culley should be determined based upon the existing lease which distributes production in pooled acreage on an acreage basis, which is the percentage which her acreage bears to the whole acreage within the pooled unit.
 - b. The terms of integration and royalty allocation proposed by Applicant are not reasonable or equitable for the following reasons:
 - i. Applicant proposes to allocate production from all zones or formations rather than solely for that production resulting from the waterflooding of the Renault formation.
 - ii. Applicant's proposed allocation formula relies on flawed or outdated data with respect to cumulative production volumes, the number of useable Renault wells on the Culley lease, and their calculations of Renault sand hydrocarbon pore volume (HCPV).
27. Informal hearings conducted according to IC 14-37-3-16 and 312 IAC 16-2-3 are solely for the expressed purpose of gathering sufficient information to assist the department with the administration of the oil and gas program. Informal hearings shall be conducted in a manner that will facilitate public participation and are not governed by the rules of evidence or discovery.
28. In response to the arguments raised by counsel for Kathryn Culley in the "Post Hearing Position Statement of Kathryn Day Culley", the division director finds the following:
- a. Allocation of production from a waterflood unit solely on an acreage basis is a commonly accepted method where primary production is contemplated and where sufficient information regarding the specific volumes of oil and other reservoir characteristics are yet to be established. However, in the immediate case, the Applicant is proposing to utilize secondary recovery operations which will result in the movement of oil and other fluids across property lines. Applicant has further provided more specific information regarding reservoir characteristics and potential volumes of remaining oil in place within the proposed unit that can be economically recovered by these operations. Application of production solely on an acreage basis would not be equitable for the other tract participants in the proposed waterflood unit.

- b. In its Application, Applicant submitted technical information with respect to the waterflooding potential only of the Renault sand. No technical information was presented with respect to the waterflooding of the Hardinsburg or any other formation within the proposed Nation Road Waterflood Unit. The allocation formulas submitted by Applicant are only valid with respect to oil production from the Renault sand. In its "Post Hearing Brief", Applicant acknowledges that there is one Hardinsburg well on the Culley Tract and one dual completion well on the Allyn Tract. The latter well is producing from both the Renault and Hardinsburg formations. Based on a representation from Applicant that these 2 wells are marginal producers and that neither would be economical in the Hardinsburg sand alone, it does not appear unreasonable that Applicant be allowed to commingle what little production may result from the Hardinsburg given the alternatives that would result should the operator be required to segregate the production from these two formations. The end result would very likely be that the Hardinsburg well on the Culley Tract would be plugged and abandoned, thereby eliminating any production whatsoever from this well. Furthermore, the expense involved in plugging the dual completion well back or otherwise modifying the well in order to isolate Renault production from Hardinsburg production would also be so costly as to make this well uneconomical to operate and force the operator to plug and abandon it as well. Both of these scenarios could be viewed as causing or contributing to waste and would result in a reduction of the volume of oil that could ultimately be economically recovered from these tracts. Should either of these wells be plugged and abandoned, no production distribution whatsoever would accrue to Kathryn Culley. However, allowing them to continue to be operated does result in a benefit to Kathryn Culley.
- c. There may indeed be other formulas that could have been used by the Applicant to calculate the allocation of production among the three tracts within this unit. Although Kathryn Culley presented arguments that the Applicant's formulas were flawed, none of the arguments were supported with sufficient technical data or justification that would result in a significant change in the actual production proceeds accruing to Ms. Culley. The benefit of using other formulas that would result in an increased portion of the production being allocated to Ms. Culley would only serve to reduce the portion allocated to the vast majority (95.5%) of the other owners. IC 14-37-9 only requires that production be shared based on "reasonable terms that give the owner of each tract an equitable share of oil or natural gas in the unit or pool". The director finds that the tract participation factors proposed by the Applicant do meet this test.
29. Based upon a review of all relevant information made available to the division in this matter, an Order of Integration should be made in order to allow the Applicant to proceed with the development of the aforementioned waterflood unit.

CONCLUSIONS OF LAW AND ORDER OF INTEGRATION

1. IC 14-37-9 and any rules promulgated thereunder apply and are pertinent to the subject matter of the Application filed herein.
2. There has been full compliance with all notice requirements provided by law, and all interested parties have been afforded an opportunity to be heard.

3. The IDNR and the Division have jurisdiction to hear this matter and authority, as delegated by the Natural Resources Commission, to order the integration of interests in accordance with IC 14-37-9-1(b)
4. The Petition, herein referenced, contains the elements required by law.
5. All leaseholds and parcels comprising the proposed NATION ROAD WATERFLOOD UNIT located in Sections 26, 27, and 34, Township 6 South, Range 13 West in Posey County, Indiana are ordered to be integrated as a single production unit. It is reasonable, fair, and equitable, as required by IC 14-37-9-2, that proceeds from the production of crude oil from this unit shall be allocated to the various tracts according to the Tract Participation Factors contained in EXHIBIT 3 of the Application. Unit operations may be conducted as if the unit areas had been included in single leases executed by all owners of oil and gas interests within said unit.
6. As provided in IC 14-37-9-2, the portion of the production allocated to the owner of any tract within the NATION ROAD WATERFLOOD UNIT shall be considered as if produced from a well drilled on that tract.
7. This order is a final administrative action of the IDNR and, as such, is subject to administrative review under IC 4-21.5-3-7 and may be placed of record by the Applicant in the appropriate public record of Posey County, Indiana.

January 28, 2009

Dated



Herschel L. McDivitt, Director
Division of Oil and Gas

**DIVISION OF OIL AND GAS
DEPARTMENT OF NATURAL RESOURCES**

**NOTICE OF ORDER OF INTEGRATION
NOTICE OF RIGHT TO APPEAL
CERTIFICATE OF MAILING**

You are hereby notified that on the date indicated below, the Indiana Department of Natural Resources, through the Director of the Division of Oil and Gas, issued an Order of Integration with respect to certain oil and gas drilling interests. The Order of Integration is based on a Petition for the Integration of Interests filed by the Applicant, Continental Resources, Inc. and on an Informal Hearing held in this matter on November 25, 2008, in Evansville, Indiana, to consider the request for integration. A copy of the Order of Integration issued on the date indicated below is enclosed.

The terms of the enclosed Order of Integration are subject to appeal and review under IC 4-21.5-3-7 in a hearing before an Administrative Law Judge. In order to qualify for administrative review, a person must petition for review in writing stating facts that demonstrate the petitioner is:

- (A) a person to whom the order is specifically directed;
- (B) aggrieved or adversely affected by the order; or
- (C) entitled to review under any law.

In order to be timely, any petition for administrative review must be filed with the Division of Hearings, Natural Resources Commission, Indiana Government Center South, 402 W. Washington St., Rm. W272, Indianapolis, IN 46204 within eighteen (18) days after the mailing date of this notice. If no petition for administrative review is filed within the stated time limit, all terms and conditions contained in the enclosed Order of Integration will become final and binding.

I further certify that a copy of the referenced Order of Integration was mailed on the date indicated below to the following:

1. The Applicant, Continental Resources, Inc., P.O. Box 749, Mt. Vernon, IL 62864.
2. Stephen T. Link, Counsel for the Applicant, 1033 Mt. Pleasant Road, Suite H, Evansville, IN 47725
3. Kathryn Day Culley, 394 Savah Road, Mt. Vernon, IN 47620.
4. Charles A. Compton, Counsel for Kathryn Day Culley, Ziemer, Stayman, Weitzel & Shoulders, LLP, 20 N.W. First Street, Ninth Floor, P.O. Box 916, Evansville, IN 47706.

January 28, 2009
Dated



Herschel L. McDivitt, Director
Division of Oil and Gas