

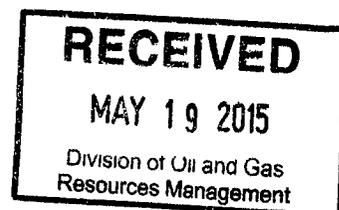
**STATE OF OHIO
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS RESOURCES MANAGEMENT**

In re the Matter of the Application of
American Energy – Utica, LLC for
Unit Operation

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:

Application Date: April 21, 2015
Supplement Date: May 19, 2015

Troyer W LND GR Unit



**APPLICATION OF AMERICAN ENERGY – UTICA, LLC (“AEU”)
FOR UNIT OPERATION**

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Date: May 19, 2015

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<u>Troyer W LND GR Unit</u>	:	

APPLICATION

Pursuant to Ohio Revised Code Section 1509.28, American Energy – Utica, LLC (the “Applicant” or “AEU”), hereby respectfully requests the Chief of the Division of Oil and Gas Resources Management (“Division”) for an order authorizing AEU to operate the Unitized Formation and applicable land area in Guernsey County, Ohio, (hereinafter, the “Troyer W LND GR Unit”) as a unit according to the Unit Plan attached hereto and as more fully described herein. AEU makes this request for, and unitization is necessary for, the purpose of substantially increasing the ultimate recovery of oil and natural gas, including related liquids, from the Unitized Formation, and to protect the correlative rights of unit owners, consistent with the public policy of Ohio to conserve and develop the state’s natural resources and prevent waste.

**I.
APPLICANT INFORMATION**

AEU is a corporation organized under the laws of the State of Oklahoma, with its principal office located at P.O. Box 18719, Oklahoma City, Oklahoma 73154. AEU is registered in good standing as an “owner” with the Division.

AEU designates to receive service, and respectfully requests that all orders, correspondence, pleadings and documents from the Division and other persons concerning this filing be served upon, the following:

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II.
PROJECT DESCRIPTION

The Troyer W LND GR Unit is located in Guernsey County, Ohio, and consists of thirty-nine (39) separate tracts of land. See Exhibits A-1 and A-2 to the Unit Operating Agreement (showing the plat and tract participations, respectively). The total land area in the Troyer W LND GR Unit is 517.086 acres and, at the time of this Application, AEU and its working interest partners have the right to drill on and produce from approximately 501 acres of the proposed unit, roughly 97 percent of the Unit Area. There is a single non-consenting working interest owner of 15.2 acres of the Unit Area within the Troyer W LND GR Unit. Further, AEU makes this application, because several leases in the unit have non-conforming pooling provisions – i.e., they limit the amount of acreage that may be voluntarily consolidated by AEU into a unit to something less than the 517.086 acres proposed for the Troyer W LND GR Unit. These leases are collectively referred to herein as the Non-Conforming Leases and consist of approximately 31 acres.¹ AEU seeks a unitization order to allow it to develop the entirety of the Troyer W LND GR Unit in accordance with the Unit Plan to protect the correlative rights of all of the interest owners in the unit and prevent the waste of natural resources that would otherwise occur.² To effectively and efficiently develop the Unit Area, therefore, AEU seeks authorization from the Division, as more specifically described herein, to drill and complete one or more horizontal wells in the Unitized Formation to efficiently test, develop, operate and produce the Unitized Formation for oil, natural gas, and related liquids production.

AEU's plan for unit operations (the "Unit Plan") is attached to this Application as Attachment 1. Among other things, the Unit Plan allocates unit production and expenses based upon each tract's surface acreage participation in the unit; includes various operating provisions in the event that other entities or persons become owners in the unit, as that term is understood in the Revised Code; and conforms to industry standards for the drilling and operating of horizontal wells.

¹ As indicated on Exhibit A-1 to the Unit Operating Agreement, AEU's acreage can be allocated as follows: Leases with conforming pooling provisions – 470 acres (or approximately 91% of the Unit) and leases with non-conforming pooling provisions (i.e., the Non-Conforming Leases) – 31.2434 acres (or approximately 6.4% of the Unit). The Non-Conforming Leases are set out more specifically on Exhibit A-3(a) to the Unit Operating Agreement.

² Note that AEU is not seeking to modify the Non-Conforming Leases. Rather, AEU is seeking an order from the Division, pursuant to the Division's statutory authority under R.C. 1509.28, that would allow AEU to develop the Troyer W LND GR Unit under the terms of the Unit Plan attached hereto.

III. TESTIMONY

The following pre-filed testimony has been attached to the Application supporting the creation of the Troyer W LND GR Unit: (i) testimony from a Geologist establishing that the Unitized Formation is part of a pool and supporting the Unit Plan's recommended allocation of unit production and expenses on a surface acreage basis;³ (ii) testimony from a Reservoir Engineer establishing that unitization is reasonably necessary to increase substantially the recovery of oil and gas, and that the value of the estimated additional resource recovery from unit operations exceeds its estimated additional costs;⁴ and (iii) testimony from a Landman describing the project generally and the terms of the Unit Plan.⁵

IV. THE CHIEF SHOULD GRANT THIS APPLICATION

A. Legal Standard

Ohio Revised Code § 1509.28 requires the Chief of the Division to issue an order providing for the unit operation of a pool – or a part thereof – if it is reasonably necessary to increase substantially the ultimate recovery of oil and gas, and the value of the estimated additional resource recovery from the unit's operations exceeds its additional costs. See Ohio Rev. Code § 1509.28(A).

The Chief's order must be on terms and conditions that are just and reasonable and prescribe a plan for unit operations that includes the following:

- (1) a description of the unit area;
- (2) a statement of the nature of the contemplated operations;
- (3) an allocation of production from the unit area not used in unit operations, or otherwise lost, to the separately owned tracts;
- (4) a provision addressing credits and charges to be made for the investment in wells, tanks, pumps, and other equipment contributed to unit operations by owners in the unit;
- (5) a provision addressing how unit operation expenses shall be determined and charged to the separately owned tracts in the unit, and how they will be paid;
- (6) a provision, if necessary, for carrying someone unable to meet their financial obligations in connection with the unit;
- (7) a provision for the supervision and conduct of unit operations in which each person has a vote with a value corresponding to the

³ See Attachment 2.

⁴ See Attachment 3.

⁵ See Attachment 4.

percentage of unit operations expenses chargeable against that person's interest;

(8) the time when operations shall commence and the manner in which, and circumstances under which, unit operations will terminate; and

(9) such other provisions appropriate for engaging in unit operations and for the protection or adjustment of correlative rights.

See Ohio Rev. Code § 1509.28(A). The Chief's order becomes effective once approved in writing by those owners who will be responsible for paying at least sixty-five percent of the costs of the unit's operations and by royalty and unleased fee-owners of sixty-five percent of the unit's acreage. Once effective, production that is "allocated to a separately owned tract shall be deemed, for all purposes, to have been actually produced from the tract, and all operations *** [conducted] upon any portion of the unit area shall be deemed for all purposes the conduct of such operations and production from any lease or contract for lands any portion of which is included in the unit area." Ohio Rev. Code § 1509.28(B)(2).

B. AEU's Application Meets this Standard

i. *The Unitized Formation is Part of a Pool*

The "Unitized Formation" consists of the subsurface portion of the Unit Area (i.e., the lands shown on Exhibit A-1 and identified in Exhibit A-2 to the Unit Operating Agreement) at an approximate depth of from 50' above the top of the Utica Shale formation to 50' below the base of the Point Pleasant formation within the Troyer W LND GR Unit. The evidence presented with this Application establishes that the Unitized Formation is part of a pool and, thus, an appropriate subject of unit operation under Ohio Rev. Code § 1509.28.⁶ Additionally, that evidence establishes that the Unitized Formation is likely to be reasonably uniformly distributed throughout the Unit Area and, thus, it is reasonable for the Unit Plan to allocate unit production and expenses to separately owned tracts on a surface acreage basis.⁷

ii. *Unit Operations Are Reasonably Necessary to Increase Substantially the Ultimate Recovery of Oil and Gas*

The evidence presented in this Application establishes that unit operations are reasonably necessary to increase substantially the ultimate recovery of oil and gas from the lands making up the Troyer W LND GR Unit. The Unit Plan contemplates the potential drilling of as many as

⁶ A "pool" is defined under Ohio law as "an underground reservoir containing a common accumulation of oil or gas, or both, but does not include a gas storage reservoir." Ohio Rev. Code § 1509.01(E). See also Attachment 2.

⁷ *Id.*

three (3) horizontal wells having laterals in approximate length of 8,600 feet.⁸ AEU estimates that the ultimate recovery from this unit development, if all unit wells are drilled, could be as much as approximately 9,664 MMcf of natural gas, 898 Mbbls barrels of natural gas liquids and 1,214 Mbbls of oil from the Unitized Formation.⁹ Absent unit operations, AEU estimates that the recovery would be substantially less given the acreage limitations imposed by the Non-Conforming Leases (the evidence further shows that absent unit operations vertical development of the unit is likely to be uneconomic).¹⁰

The evidence thus shows that the contemplated unit operations are reasonably necessary to increase substantially the recovery of oil and gas from the Unitized Formation.

iii. *The Value of Additional Recovery Exceeds Its Additional Costs*

The evidence shows that the estimated additional recovery from unit operations has a net present value of approximately \$4.3 million.¹¹ See also Attachment 3 – Exhibit DB-2 (describing for each proposed well the estimated value of the well’s production and the estimated drilling and operating costs, incorporated here as if fully rewritten herein). The evidence accordingly establishes that the value of the estimated additional recovery exceeds the estimated additional costs incident to conducting unit operations.

V.
HEARING

Ohio Revised Code § 1509.28 requires the Chief to hold a hearing to consider this Application when requested by sixty-five percent (65%) of the owners of the land area underlying the proposed unit. Ohio Rev. Code § 1509.28(A). That threshold level is met here. See Attachment 4 – Exhibit LF-1. Accordingly, AEU respectfully requests that the Division schedule a hearing at an available hearing room located at the Division’s Columbus complex on or before August 19, 2015 to consider the Application filed herein.

VI.
CONCLUSION

Ohio Revised Code § 1509.28 requires the Chief of the Division to issue an order for the unit operation of a pool or a part thereof if it is reasonably necessary to increase substantially the recovery of oil and gas, and the value of the estimated additional recovery from the unit’s opera-

⁸ See Attachment 3.

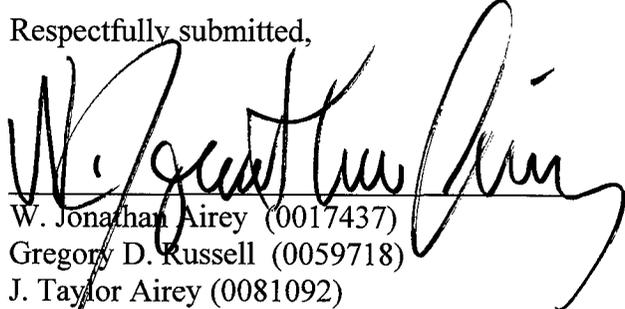
⁹ See Attachment 3. We emphasize that these are only estimates, and like the rest of the estimates set forth in this Application, they should be treated simply as estimates based upon the best information available at the time.

¹⁰ *Id.*

¹¹ See Attachment 3.

tions exceeds its estimated additional costs. AEU respectfully submits that the Application meets this standard, and that the terms and conditions of the proposed Unit Plan are just and reasonable and satisfy the requirements of Ohio Revised Code § 1509.28(B). AEU therefore asks the Chief to issue an order authorizing AEU to operate the Troyer W LND GR Unit according to the Unit Plan attached hereto.

Respectfully submitted,



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**PLAN FOR UNIT OPERATIONS
THE TROYER W LND GR UNIT
LONDONDERRY TOWNSHIP
GUERNSEY COUNTY, OHIO**

The following shall constitute the Plan for Unit Operations applicable to the Troyer W LND Unit in Londonderry Township, Guernsey County, Ohio, and having as its purpose the unitized management, operation, and development of the Unitized Formation as herein defined, to advance the public welfare and promote conservation, to increase the ultimate recovery of oil, natural gas, and other substances therefrom, and to avoid waste and protect the correlative rights of the owners of interests therein.

ARTICLE 1: DEFINITIONS

As used in this Plan for Unit Operations:

Division refers to the Ohio Department of Natural Resources' Division of Oil and Gas Resources Management.

Effective Date is the time and date this Plan becomes effective as provided in Article 11.

Oil and Gas Rights are the rights to investigate, explore, prospect, drill, develop, produce, market, transport, and operate within the Unit Area for the production of Unitized Substances, or to share in the production so obtained or the proceeds thereof, including without limitation the conducting of exploration, geologic and/or geophysical surveys by seismograph, core test, gravity and/or magnetic methods, the injecting of gas, water, air or other fluids into the Unitized Formation, the installation, operation and maintenance of monitoring facilities, the laying of pipelines, building of roads, tanks, power stations, telephone lines, and/or other structures.

Person is any individual, corporation, partnership, association, receiver, trustee, curator, executor, administrator, guardian, fiduciary, or other representative of any kind, any department, agency, or instrumentality of the state, or any governmental subdivision thereof, or any other entity capable of holding an interest in the Unitized Substances or Unitized Formation.

Plan means this Plan for Unit Operations for the Troyer W LND GR Unit, Londonderry Township, Guernsey County, Ohio, including, unless otherwise expressly mentioned, any and all attachments and exhibits hereto.

Royalty Interest means a right to or interest in any portion of the Unitized Substances or proceeds from the sale thereof, other than a Working Interest.

Royalty Owner is a Person who owns a Royalty Interest.

Tract means the land identified by a tract number in Exhibit A-2 to the Unit Operating Agreement.

Tract Participation means the fractional interest shown on Exhibit A-2 to the Unit Operating Agreement for allocating Unitized Substances to a Tract.

Uncommitted Working Interest Owner is a Working Interest Owner, other than an Unleased Mineral Owner, who has not agreed to, ratified or otherwise approved this Plan. Uncommitted Working Interest Owners are likely, but not necessarily, to have obtained their interest by lease.

Unit Area means the lands shown on the plat attached as Exhibit A-1 and identified on Exhibit A-2 to the Unit Operating Agreement, including also areas to which this Plan may be extended as herein provided.

Unit Equipment means all personal property, lease and well equipment, plants, and other facilities and equipment taken over or otherwise acquired for the unit account for use in Unit Operations.

Unit Expense means all cost, expense, investment and indebtedness incurred by Working Interest Owners or Unit Operator pursuant to this Plan for or on account of Unit Operations.

Unitized Formation means the subsurface portion of the Unit Area located from 50' feet above the top of the Utica formation to 50' feet below the base of the Point Pleasant formation, believed to be approximately 7,550 feet subsurface to 7,875 feet subsurface TVD ("True Vertical Depth").

Unit Operating Agreement means the modified A.A.P.L. Form 610-1989 Model Form Operating Agreement that is attached hereto as Exhibit 1 and incorporated herein by reference as if fully re-written herein and to which all Working Interest Owners are deemed to be parties; provided, however, that in the event two or more Working Interest Owners have agreed to a separate joint operating agreement relating to the supervision and conduct of unit operations contemplated herein, such operating agreement shall control. The Unit Operating Agreement contains provisions for credits and charges among Working Interest Owners for their respective investments in, and expenses for, Unit Operations, including a provision, if necessary, for carrying any Person unable or electing not to participate in Unit Operations. In addition, the Unit Operating Agreement also contains provisions relating to the supervision and conduct of Unit Operations and the manner in which Working Interest Owners may vote. In the event of a conflict between the terms of the Unit Operating Agreement and the other terms of this Plan, excluding the Unit Operating Agreement, such other terms of this Plan shall govern.

Unit Operations are all operations conducted pursuant to this Plan.

Unit Operator is the Person designated by Working Interest Owners under the Unit Operating Agreement to conduct Unit Operations.

Unit Participation is the sum of the interests obtained by multiplying the Working Interest of a Working Interest Owner in each Tract by the Tract Participation of such Tract.

Unitized Substances are all oil, gas, gaseous substances, sulfur, condensate, distillate, and all associated and constituent liquid or liquefiable hydrocarbons within or produced from the Unitized Formation.

Unleased Mineral Owner is a Person who owns Oil and Gas Rights free of a lease or other instrument conveying all or any portion of the Working Interest in such rights to another.

Working Interest means an interest in Unitized Substances in the Unit Area by virtue of a lease, operating agreement, fee title, or otherwise, including a carried interest, the owner of which is obligated to pay, either in cash or out of production or otherwise, a portion of the Unit Expense; however, Oil and Gas Rights that are free of a lease or other instrument creating a Working Interest shall be regarded as a Working Interest to the extent of 87.5% thereof and a Royalty Interest to the extent of the remaining 12.5% thereof, such Royalty Interest to be subject to any post-production costs, taxes, assessments and other fees as may be set forth in the Unit Operating Agreement. A Royalty Interest created out of a Working Interest subsequent to the participation of, subscription to, ratification of, approval by, or consent to this Plan by the owner of such Working Interest shall continue to be subject to such Working Interest burdens and obligations that are stated in this Plan.

Working Interest Owner is a Person who owns a Working Interest.

ARTICLE 2: CREATION AND EFFECT OF UNIT

Oil and Gas Rights Unitized. All Royalty Interests and Working Interests in Oil and Gas Rights in and to the lands identified on Exhibits A-1 and A-2 to the Unit Operating Agreement are hereby unitized insofar as, and only insofar as, the respective Oil and Gas Rights pertain to the Unitized Formation, so that Unit Operations may be conducted with respect to the Unitized Formation as if the Unit Area had been included in a single lease executed by all Royalty Owners, as lessors, in favor of all Working Interest Owners, as lessees, and as if the lease contained all of the provisions of this Plan.

Personal Property Excepted. All lease and well equipment, materials, and other facilities heretofore or hereafter placed by any of the Working Interest Owners on the lands covered hereby shall be deemed to be and shall remain personal property belonging to, and may be removed by, Working Interest Owners with the prior consent of Unit Operator. The rights and interests therein, as among Working Interest Owners, are set forth in the Unit Operating Agreement.

Continuation of Leases and Term Interests. Unit Operations conducted upon any part of the Unit Area or production of Unitized Substances from any part of the Unitized Formation, except for the purpose of determining payments to Royalty Owners, shall be considered as operations upon or production from each portion of each Tract, and such production or operations shall continue in effect each lease or term, mineral or Royalty Interest, as to all Tracts and formations covered or affected by this Plan just as if such Unit Operations had been

Troyer W LND GR Unit
Londonderry Township
Guernsey County, Ohio

conducted and a well had been drilled on and was producing from each portion of each Tract. Each lease shall remain in full force and effect from the date of execution hereof until the Effective Date, and thereafter in accordance with its terms and this Plan.

Titles Unaffected by Unitization. Nothing herein shall be construed to result in any transfer of title to Oil and Gas Rights by any Person to any other Person or to Unit Operator.

Pre-existing Conditions in Unit Area. Working Interest Owners shall not be liable for or assume any obligation with respect to (i) the restoration or remediation of any condition associated with the Unit Area that existed prior to the Effective Date of this Plan, or (ii) the removal and/or plugging and abandonment of any wellbore, equipment, fixtures, facilities or other property located in, on or under the Unit Area prior to the Effective Date of this Plan.

ARTICLE 3: UNIT OPERATIONS

Unit Operator. Unit Operator shall have the exclusive right to conduct Unit Operations, which shall conform to the provisions of this Plan.

Unit Expenses. All Unit Expenses shall be just and reasonable, and shall be charged as set out in the Unit Operating Agreement. Except as otherwise provided in the Unit Operating Agreement, Unit Expenses shall be allocated to each Tract based upon its Tract Participation, and shall be paid by the Tract's Working Interest Owners.

ARTICLE 4: TRACT PARTICIPATIONS

Tract Participations. The Tract Participation of each Tract is identified in Exhibit A-2 to the Unit Operating Agreement and shall be determined solely upon an acreage basis as the proportion that the Tract surface acreage inside the Unit Area bears to the total surface acreage of the Unit Area. The Tract Participation of each Tract has been calculated as follows: TRACT SURFACE ACRES WITHIN THE UNIT AREA DIVIDED BY THE TOTAL SURFACE ACRES WITHIN THE UNIT AREA.

ARTICLE 5: ALLOCATION OF UNITIZED SUBSTANCES

Allocation of Unitized Substances. All Unitized Substances produced and saved shall be allocated to the several Tracts in accordance with the respective Tract Participations effective during the period that the Unitized Substances were produced. The amount of Unitized Substances allocated to each Tract, regardless of whether the amount is more or less than the actual production of Unitized Substances from the well or wells, if any, on such Tract, shall be deemed for all purposes to have been produced from such Tract.

Distribution Within Tracts. The Unitized Substances allocated to each Tract or portion thereof shall be distributed among, or accounted for to, the Persons entitled to share in the production from such Tract or portion thereof in the same manner, in the same proportions, and upon the same conditions as they would have participated and shared in the production from such Tract, or in the proceeds thereof, had this Plan not been entered into, and with the same legal effect. If any Oil and Gas Rights in a Tract hereafter become divided and owned in severalty as to different parts of the Tract, the owners of the divided interests, in the absence of an agreement providing for a different division, shall share in the Unitized Substances allocated to the Tract, or in the proceeds thereof, in proportion to the surface acreage of their respective parts of the Tract. Any royalty or other payment which depends upon per well production or pipeline runs from a well or wells on a Tract shall, after the Effective Date, be determined by dividing the Unitized Substances allocated to the Tract by the number of wells on the Tract capable of producing Unitized Substances on the Effective Date; however, if any Tract has no well thereon capable of producing Unitized Substances on the Effective Date, the Tract shall, for the purpose of this determination, be deemed to have one (1) such well thereon.

ARTICLE 6: USE OR LOSS OF UNITIZED SUBSTANCES

Use of Unitized Substances. Working Interest Owners may use or consume Unitized Substances for Unit Operations, including but not limited to, the injection thereof into the Unitized Formation.

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Londonderry Township
Guernsey County, Ohio

Royalty Payments. No royalty, overriding royalty, production, or other payments shall be payable on account of Unitized Substances used, lost, or consumed in Unit Operations, including without limitation the testing of the productivity of any wells drilled in the Unit Area. Royalty payments shall be made to Unleased Mineral Owners beginning with the initial distribution date for production of Unitized Substances from any well within the Troyer W LND GR Unit.

ARTICLE 7: TITLES

Warranty and Indemnity. Each Person who, by acceptance of produced Unitized Substances or the proceeds from a sale thereof, may claim to own a Working Interest or Royalty Interest in and to any Tract or in the Unitized Substances allocated thereto, shall be deemed to have warranted its title to such interest, and, upon receipt of the Unitized Substances or the proceeds from a sale thereof to the credit of such interest, shall indemnify and hold harmless all other Persons in interest from any loss due to failure, in whole or in part, of its title to any such interest; provided, however, that nothing in this provision shall apply to Unleased Mineral Owners.

Production Where Title is in Dispute. If the title or right of any Person claiming the right to receive in kind all or any portion of the Unitized Substances allocated to a Tract is in dispute, Unit Operator at the direction of Working Interest Owners may: Require that the Person to whom such Unitized Substances are delivered or to whom the proceeds from a sale thereof are paid furnish security for the proper accounting therefor to the rightful owner or owners if the title or right of such Person fails in whole or in part; or withhold and market the portion of Unitized Substances with respect to which title or right is in dispute, and hold the proceeds thereof until such time as the title or right thereto is established by a final judgment of a court of competent jurisdiction or otherwise to the satisfaction of Working Interest Owners, whereupon the proceeds so held shall be paid to the Person rightfully entitled thereto.

Transfer of Title. Any conveyance of all or any part of any interest owned by any Person hereto with respect to any Tract shall be made expressly subject to this Plan. No change of title shall be binding upon Unit Operator, or upon any Person hereto other than the Person so transferring, until 7:00 a.m. on the first day of the calendar month next succeeding the date of receipt by Unit Operator of a certified copy of the recorded instrument evidencing such change in ownership.

ARTICLE 8: EASEMENTS, GRANTS, OR USE OF SURFACE

Grant of Easements. Subject to the terms and conditions of the various leases, Unit Operator shall have the right of ingress and egress along with the right to use as much of the surface of the land within the Unit Area as may be reasonably necessary for Unit Operations and the removal of Unitized Substances from the Unit Area.

Use of Water. The following shall apply subject to the terms and conditions of the various leases: Unit Operator shall have and is hereby granted free use of water from the Unit Area for Unit Operations, except water from any well, lake, pond, or irrigation ditch of a Royalty Owner. Unit Operator may convert dry or abandoned wells in the Unit Area for use as water supply or disposal wells.

Surface Damages. Subject to the terms and conditions of the various leases, Working Interest Owners shall reimburse the owner for the market value prevailing in the area of growing crops, livestock, timber, fences, improvements, and structures on the Unit Area that are destroyed or damaged as a result of Unit Operations.

Unleased Property. Notwithstanding anything in this Article 8 to the contrary, and except where otherwise authorized by the Division, there shall be no Unit Operations conducted on the surface of any property located within the Troyer W LND GR Unit, and there shall be no right of ingress and egress over and no right to use the surface waters of any surface lands located within the Troyer W LND GR Unit, owned by a non-consenting Unleased Mineral Owner.

ARTICLE 9: CHANGE OF TITLE

Covenant Running with the Land. This Plan shall extend to, be binding upon, and inure to the benefit of the owners of the Royalty Interests and Working Interests in Oil and Gas Rights unitized hereby, and the respective heirs, devisees, legal representatives, successors, and assigns thereof, and shall constitute a covenant running with the lands, leases, and interests impacted hereby.

Waiver of Rights of Partition. No Person affected hereby shall resort to any action to, and shall not, partition Oil and Gas Rights, the Unit Area, the Unitized Formation, the Unitized Substances or the Unit Equipment.

ARTICLE 10: RELATIONSHIPS OF PERSONS

No Partnership. All duties, obligations, and liabilities arising hereunder shall be several and not joint or collective. This Plan is not intended to and shall not be construed to create an association or trust, or to impose a partnership or fiduciary duty, obligation, or liability. Each Person affected hereby shall be individually responsible for its own obligations.

No Joint or Cooperative Refining, Sale or Marketing. This Plan is not intended and shall not be construed to provide, directly or indirectly, for any joint or cooperative refining, sale or marketing of Unitized Substances.

ARTICLE 11: EFFECTIVE DATE

Effective Date. This Plan shall become effective as of, and operations may commence hereunder as of, 7:00 A.M. on the date of an effective order approving this unit by the Division in accordance with the provisions of Ohio Revised Code Section 1509.28; provided, however, that Working Interest Owners may terminate this Plan in the event of a material modification by the Division of all or any part of this Plan in such order by filing a notice of termination with the Division within thirty (30) days of such order becoming final and no longer subject to further appeal. In the event a dispute arises or exists with respect to this Plan, or the order approving this unit issued by the Division, Unit Operator may, in its sole discretion, hold the revenues from the sale of Unitized Substances until such time as such dispute is resolved or, in the Unit Operator's opinion, it is appropriate to distribute such revenues.

ARTICLE 12: TERM

Term. This Plan, unless sooner terminated in the manner hereinafter provided, shall remain in effect for five (5) years from the Effective Date and as long thereafter as Unitized Substances are produced, or are capable of being produced, in paying quantities from the Unit Area without a cessation of more than one hundred and eighty (180) consecutive days, or so long as other Unit Operations are conducted without a cessation of more than one hundred and eighty (180) consecutive days, unless sooner terminated by Working Interest Owners owning a combined Unit Participation of fifty-one percent (51%) or more whenever such Working Interest Owners determine that Unit Operations are no longer warranted. The date of any termination hereunder shall be known as the "Termination Date."

Effect of Termination. Upon termination of this Plan, the further development and operation of the Unitized Formation as a unit shall cease. Each oil and gas lease and other agreement covering lands within the Unit Area shall remain in force for one hundred eighty (180) days after the date on which this Plan terminates, and for such further period as is provided by the lease or other agreement. The relationships among owners of Oil and Gas Rights shall thereafter be governed by the terms and provisions of the leases and other instruments, not including this Plan, affecting the separate Tracts.

Certificate of Termination. Upon termination of this Plan, Unit Operator shall file with the Division and for record in the county or counties in which the land affected is located a certificate stating that this Plan has terminated and the Termination Date.

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Londonderry Township
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Salvaging Equipment Upon Termination. If not otherwise granted by the leases or other instruments affecting the separate Tracts, Working Interest Owners shall have a period of six (6) months after the Termination Date within which to salvage and remove Unit Equipment.

ARTICLE 13: APPROVAL

Original, Counterpart, or Other Instrument. An owner of Oil and Gas Rights or its agent may approve this Plan by signing the original, a counterpart thereof, or other instrument approving this Plan. The signing of any such instrument shall have the same effect as if all Persons had signed the same instrument.

Commitment of Interests to Unit. The approval of this Plan by a Person or their agent shall bind that Person and commit all interests owned or controlled by that Person as of the date of such approval, and additional interests thereafter acquired.

Joinder in Dual Capacity. Execution as herein provided by any Person, as either Working Interest Owner or a Royalty Owner, shall commit all interests owned or controlled by such Person as of the date of such execution and any additional interest thereafter acquired.

ARTICLE 14: MISCELLANEOUS

Determinations by Working Interest Owners. Each Working Interest Owner shall have a voting interest equal to its Unit Participation. All decisions, determinations, or approvals by Working Interest Owners hereunder shall be made by the affirmative vote of one or more parties having a combined voting interest of at least fifty one percent (51%). No vote, however, is required for such determinations if the Unit Operator owns or controls fifty one percent (51%) or more of the Working Interest in the Unit Area.

Severability of Provisions. The provisions of this Plan are severable and if any section, sentence, clause or part thereof is held to be invalid for any reason, such invalidity shall not be construed to affect the validity of the remaining provisions of this Plan.

Laws and Regulations. This Plan shall be governed by and subject to the laws of the State of Ohio, to the valid rules, regulations, orders and permits of the Division, and to all other applicable federal, state, and municipal laws, rules, regulations, orders, and ordinances. Any change of the Unit Area or any amendment to this Plan shall be in accordance with Ohio law.

This instrument prepared by: W. Jonathan Airey, Gregory D. Russell, J. Taylor Airey and Sean M. Kohl, Vorys, Sater, Seymour and Pease LLP, 52 East Gay Street, P. O. Box 1008, Columbus, Ohio 43216

A.A.P.L. FORM 610 - 1989

MODEL FORM OPERATING AGREEMENT

OPERATING AGREEMENT

DATED

_____, _____, _____
Year

OPERATOR American Energy – Utica, LLC

CONTRACT AREA Troyer W LND GR Unit, as described in Exhibit "A"

COUNTY OF Guernsey, STATE OF Ohio

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AMERICAN ASSOCIATION OF PETROLEUM
LANDMEN, 4100 FOSSIL CREEK BLVD.
FORT WORTH, TEXAS, 76137, APPROVED FORM.

A.A.P.L. NO. 610 1989

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OPERATING AGREEMENT

THIS AGREEMENT, entered into by and between American Energy – Utica, LLC hereinafter designated and referred to as "Operator," and the signatory party or parties other than Operator, sometimes hereinafter referred to individually as "Non-Operator," and collectively as "Non-Operators."

WITNESSETH:

WHEREAS, the parties to this agreement are owners of Oil and Gas Leases and/or Oil and Gas Interests in the land identified in Exhibit "A," and the parties hereto have reached an agreement to explore and develop these Leases and/or Oil and Gas Interests for the production of Oil and Gas to the extent and as hereinafter provided,

NOW, THEREFORE, it is agreed as follows:

ARTICLE I.

DEFINITIONS

As used in this agreement, the following words and terms shall have the meanings here ascribed to them:

A. The term "AFE" shall mean an Authority for Expenditure prepared by a party to this agreement for the purpose of estimating the costs to be incurred in conducting an operation hereunder.

B. The term "Completion" or "Complete" shall mean a single operation intended to complete a well as a producer of Oil and Gas in one or more Zones, including, but not limited to, the setting of production casing, perforating, well stimulation and production testing conducted in such operation.

C. The term "Contract Area" shall mean all of the lands, Oil and Gas Leases and/or Oil and Gas Interests intended to be Developed and operated for Oil and Gas purposes under this agreement. Such lands, Oil and Gas Leases and Oil and Gas Interests are described in Exhibit "A." See also Article XVI.K.

D. The term "Deepen" shall mean a single operation whereby a well is drilled to an objective Zone below the deepest Zone in which the well was previously drilled, or below the Deepest Zone proposed in the associated AFE, whichever is the lesser.

E. The terms "Drilling Party" and "Consenting Party" shall mean a party who agrees to join in and pay its share of the cost of any operation conducted under the provisions of this agreement.

F. The term "Drilling Unit" shall mean the area fixed for the drilling of one well / by order or rule of any state or federal body having authority. ^{or more wells} If a Drilling Unit is not fixed by any such rule or order, a Drilling Unit shall be the drilling unit as established by the / pattern of drilling in the Contract Area unless fixed by express agreement of the Drilling Parties. See also Article XVI.K.

G. The term "Drillsite" shall mean the Oil and Gas Lease or Oil and Gas interest on which a proposed well is to be located.

H. The term "Initial Well" shall mean the well required to be drilled by the parties hereto as provided in Article VI.A.

I. The term "Non-Consent Well" shall mean a well in which less than all parties have conducted an operation as provided in Article VI.B.2.

J. The terms "Non-Drilling Party" and "Non-Consenting Party" shall mean a party who elects not to participate in a proposed operation.

K. The term "Oil and Gas" shall mean oil, gas, casinghead gas, gas condensate, and/or all other liquid or gaseous hydrocarbons and other marketable substances produced therewith, unless an intent to limit the inclusiveness of this term is specifically stated.

L. The term "Oil and Gas Interests" or "Interests" shall mean uncased fee and mineral interests in Oil and Gas in tracts of land lying within the Contract Area which are owned by parties to this agreement.

M. The terms "Oil and Gas Lease," "Lease" and "Leasehold" shall mean the oil and gas leases or interests therein covering tracts of land lying within the Contract Area which are owned by the parties to this agreement.

N. The term "Plug Back" shall mean a single operation whereby a deeper Zone is abandoned in order to attempt a Completion in a shallower Zone.

O. The term "Recompletion" or "Recomplete" shall mean an operation whereby a Completion in one Zone is abandoned in order to attempt a Completion in a different Zone within the existing wellbore.

P. The term "Rework" shall mean an operation conducted in the wellbore of a well after it is Completed to secure, restore, or improve production in a Zone which is currently open to production in the wellbore. Such operations include, but are not limited to, well stimulation operations but exclude any routine repair or maintenance work or drilling, Sidetracking, Deepening, Completing, Recompleting, or Plugging Back of a well.

Q. The term "Sidetrack" shall mean ^{in the case of Vertical Wells,} the directional control and intentional deviation of a well from vertical so as to change the bottom hole location and, in the case of Horizontal Wells (defined hereinafter), an operation by which a lateral wellbore is drilled off of the horizontal wellbore, in each case unless done to straighten the hole or drill around junk in the hole ^{or} to overcome other mechanical difficulties.

R. The term "Zone" shall mean a stratum of earth containing or thought to contain a common accumulation of Oil and Gas separately producible from any other common accumulation of Oil and Gas.

S. The term "Lateral" shall mean that portion of a wellbore that deviates from approximate vertical orientation to approximate horizontal orientation and all wellbore beyond such deviation to Total Measured Depth.

T. The term "Vertical Well" shall mean any well other than a "Horizontal Well".

U. The term "Horizontal Well" shall mean a well containing a single Lateral in which the wellbore deviates at an angle of at least eighty degrees (80°) from true vertical and with a horizontal projection exceeding one hundred feet (100') measured from the initial point of penetration into a specific geological interval.

V. The term "Multi-lateral Well" shall mean a Horizontal Well which contains more than one Lateral.

W. The term "Total Measured Depth," when used in connection with a Multi-lateral or Horizontal Well, shall mean the distance from the surface of the ground to the terminus of the wellbore, as measured along the wellbore. Each Lateral taken together with the common vertical wellbore shall be considered a single wellbore and shall have a corresponding Total Measured Depth. When the proposed operation(s) is the drilling of, or operation on, a Multi-lateral or Horizontal Well, the term "depth" or "total depth" wherever used in the Agreement shall be deemed to read "Total Measured Depth" insofar as it applies to such well.

X. The term "Deepen" when used in conjunction with a Multi-lateral or Horizontal Well shall mean an operation whereby a lateral is drilled to a distance greater than the distance set out in the well proposal approved by the participating parties. This shall include reentry of a Vertical Well to convert the well to a Horizontal Well. See also Article XVI.E.2.

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1 Y. For the purposes of this Agreement, as to a Multi-lateral or Horizontal Well, the term "Plug Back" shall mean an
2 operation to test or complete the well at a stratigraphically shallower geological horizon in which the operation has been or is being
3 completed and which is not within an existing Lateral.

4 Z. The term "affiliate" shall mean any Person that, directly or indirectly, through one or more intermediaries,
5 Controls or is Controlled by, or is under common Control with, another Person.

6 AA. The term "Control" and its derivatives with respect to any Person shall mean the possession, directly or
7 indirectly, of the power, directly or indirectly, to direct or cause the direction of the management or policies of the controlled
8 Person, whether through the ownership of equity interests in or voting rights attributable to the equity interests in such Person, by
9 contract or agency, by the general partner of a Person that is a partnership, or otherwise.

10 BB. The term "Person" shall mean any individual, corporation, company, partnership, limited partnership, limited
11 liability company, trust, estate, governmental authority or any other entity.

12 Unless the context otherwise clearly indicates, words used in the singular include the plural, the word "person" includes
13 natural and artificial persons, the plural includes the singular, and any gender includes the masculine, feminine, and neuter.

14
15 **ARTICLE II.**

16 **EXHIBITS**

17 The following exhibits, as indicated below and attached hereto, are incorporated in and made a part hereof:

- 18 A. Exhibit "A," shall include the following information:
19 (1) Description of lands subject to this agreement,
20 (2) Restrictions, if any, as to depths, formations, or substances,
21 (3) Parties to agreement with addresses and telephone numbers for notice purposes,
22 (4) Percentages or fractional interests of parties to this agreement,
23 (5) Oil and Gas Leases and/or Oil and Gas Interests subject to this agreement.
24 (6) Burdens on production.
25 (7) Exhibit "A-1" - List of Contract Area
26 (8) Exhibit "A-2" - Plat of Contract Area
27 (9) Exhibit "A-3" - Unitized Parties
- 28 B. Exhibit "B," Form of Lease.
- 29 C. Exhibit "C," Accounting Procedure.
- 30 D. Exhibit "D," Insurance.
- 31 E. Exhibit "E," Gas Balancing Agreement.
- 32 ~~F. Exhibit "F," Non-Discrimination and Certification of Non-Segregated Facilities.~~
- 33 ~~G. Exhibit "G," Tax Partnership.~~
- 34 F. Other: **Model Form Recording Supplement to Operating Agreement and Financing Agreement.**
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1 If any provision of any exhibit, except Exhibits "E," "F," and "G," is inconsistent with any provision contained in
2 the body of this agreement, the provisions in the body of this agreement shall prevail.

3
4 **ARTICLE III.**
5 **INTERESTS OF PARTIES**

6 **A. Oil and Gas Interests:**

7 ~~If any party owns / an Oil and Gas Interest in the Contract Area, that Interest shall be treated for all purposes of this~~
8 ~~agreement and during the term hereof as if it were covered by the form of Oil and Gas Lease attached hereto as Exhibit "B,"~~
9 ~~and the owner thereof shall be deemed to own both royalty interest in such lease and the interest of the lessee thereunder.~~

10 **B. Interests of Parties in Costs and Production:**

11 Unless changed by other provisions, all costs and liabilities incurred in operations under this agreement shall be borne
12 and paid, and all equipment and materials acquired in operations on the Contract Area shall be owned, by the parties as their
13 interests are set forth in Exhibit "A." In the same manner, the parties shall also own all production of Oil and Gas from the
14 Contract Area subject, however, to the payment of royalties and other burdens on production ~~as described hereafter.~~ **subject to burdens of record**

15 Regardless of which party has contributed any Oil and Gas Lease or Oil and Gas Interest on which royalty or other
16 burdens may be payable and except as otherwise expressly provided in this agreement, each party shall pay or deliver, or
17 cause to be paid or delivered, all burdens on its share of the production from the Contract Area up to, but not in excess of the lowest sum of
18 royalty plus overriding royalty of any Oil and Gas Lease in the Contract Area and shall indemnify, defend and hold the other parties free
19 from any liability therefor.

20 Except as otherwise expressly provided in this agreement, if any party has contributed hereto any Lease or Interest which is
21 burdened with any royalty, overriding royalty, production payment or other burden on production in excess of the amounts
22 stipulated above, such party so burdened shall assume and alone bear all such excess obligations and shall indemnify, defend
23 and hold the other parties hereto harmless from any and all claims attributable to such excess burden. However, so long as
24 the Drilling Unit for the productive Zone(s) is identical with the Contract Area, each party shall pay or deliver, or cause to
25 be paid or delivered, all burdens on production from the Contract Area due under the terms of the Oil and Gas Lease(s)
26 which such party has contributed to this agreement, and shall indemnify, defend and hold the other parties free from any
27 liability therefor.

28 No party shall ever be responsible, on a price basis higher than the price received by such party, to any other party's
29 lessor or royalty owner, and if such other party's lessor or royalty owner should demand and receive settlement on a higher
30 price basis, the party contributing the affected Lease shall bear the additional royalty burden attributable to such higher price.

31 Nothing contained in this Article III.B. shall be deemed an assignment or cross-assignment of interests covered hereby,
32 and in the event two or more parties contribute to this agreement jointly owned Leases, the parties' undivided interests in
33 said Leaseholds shall be deemed separate leasehold interests for the purposes of this agreement.

34 **C. Subsequently Created Interests:**

35 If any party has contributed hereto a Lease or Interest that is burdened with an assignment of production given as security
36 for the payment of money, or if, after the date of this agreement, any party creates an overriding royalty, production
37 payment, net profits interest, assignment of production or other burden payable out of production attributable to its working
38 interest hereunder, such burden shall be deemed a "Subsequently Created Interest." Further, if any party has contributed
39 hereto a Lease or Interest burdened with an overriding royalty, production payment, net profits interests, or other burden
40 payable out of production created prior to the date of this agreement, and such burden is **not recorded or is not referenced by another**
41 **recorded instrument sufficient for notice purposes in the county records of the applicable county** or is not shown on Exhibit "A," such
42 burden also shall be deemed a Subsequently Created Interest to the extent such burden causes the burdens on such party's
43 Lease or Interest to exceed the amount stipulated in Article III.B. above.

44 The party whose interest is burdened with the Subsequently Created Interest (the "Burdened Party") shall assume and
45 alone bear, pay and discharge the Subsequently Created Interest and shall indemnify, defend and hold harmless the other
46 parties from and against any liability therefor. Further, if the Burdened Party fails to pay, when due, its share of expenses
47 chargeable hereunder, all provisions of Article VII.B. shall be enforceable against the Subsequently Created Interest in the
48 same manner as they are enforceable against the working interest of the Burdened Party. If the Burdened Party is required
49 under this agreement to assign or relinquish to any other party, or parties, all or a portion of its working interest and/or the
50 production attributable thereto, said other party, or parties, shall receive said assignment and/or production free and clear of
51 said Subsequently Created Interest, and the Burdened Party shall indemnify, defend and hold harmless said other party, or
52 parties, from any and all claims and demands for payment asserted by owners of the Subsequently Created Interest.

53 **ARTICLE IV.**
54 **TITLES**

55 **A. Title Examination:**

56 Title examination shall be made on the ~~wellbore path and~~ **wellbore path and** ~~Drillsite of any proposed well prior to commencement of drilling operations and, /~~ **thereafter**
57 ~~if a majority in interest of the Drilling Parties so requests or~~ Operator so elects, title examination shall be made on the entire
58 Drilling Unit, or maximum anticipated Drilling Unit, of the well. The opinion will include the ownership of the working
59 interest, minerals, royalty, overriding royalty and production payments under the applicable Leases. Each party, other than unleased
60 mineral ~~owner,~~ **owner,** contributing
61 Leases and/or Oil and Gas Interests to be included in the Drillsite or Drilling Unit, if appropriate, shall furnish to Operator
62 all abstracts (including federal lease status reports), title opinions, title papers and curative material in its possession free of
63 charge. All such information not in the possession of or made available to Operator by the parties, but necessary for the
64 examination of the title, shall be obtained by Operator. Operator shall cause title to be examined by attorneys on its staff or
65 by outside attorneys. Copies of all title opinions shall be furnished to each Drilling Party. Costs incurred by Operator in
66 procuring abstracts, fees paid ~~outside attorneys /~~ **and field landmen and title specialists** for title examination (including preliminary, supplemental, shut-in royalty
67 opinions and division order title opinions) and other direct charges as provided in Exhibit "C" shall be borne by the Drilling
68 Parties in the proportion that the interest of each Drilling Party bears to the total interest of all Drilling Parties as such
69 interests appear in Exhibit "A." Operator shall make no charge for services rendered by its staff attorneys or other personnel
70 in the performance of the above functions ~~that exceeds prevailing rates in the area. Operator may use staff field landmen and title~~
71 ~~specialists for abstracting and staff attorneys for title examination if such personnel are employed specifically for this purpose and~~
72 ~~are billed at rates no higher than third party rates billed for similar services in the state where the services are rendered. Operator~~
73 ~~may also charge a reasonable digital abstracting fee per tract if Operator has imaged and indexed the county records in which the~~
74 ~~Contract Area is located.~~ **Contract Area is located.**

Each party shall be responsible for securing curative matter and pooling amendments or agreements required in
connection with Leases or Oil and Gas Interests contributed by such party. Operator shall be responsible for the preparation
and recording of pooling designations or declarations and communitization agreements as well as the conduct of hearings

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1 before governmental agencies for the securing of spacing or pooling orders or any other orders necessary or appropriate to
2 the conduct of operations hereunder. This shall not prevent any party from appearing on its own behalf at such hearings.
3 Costs incurred by Operator, including fees paid to outside attorneys, which are associated with hearings before governmental
4 agencies, and which costs are necessary and proper for the activities contemplated under this agreement, shall be direct
5 charges to the joint account and shall not be covered by the administrative overhead charges as provided in Exhibit "C."

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1 Operator shall make no charge for services rendered by its staff attorneys or other personnel in the performance of the above
2 functions, **except as provided herein.**

3 No well shall be drilled on the Contract Area until after (1) the title to the wellbore path have
4 been examined as above provided, and (2) the title has been approved by the examining attorney / or title has been accepted by
5 ~~all of the Drilling Parties in such well.~~ **the Operator.**

6 **B. Loss or Failure of Title:**

7 1. Failure of Title: Should any Oil and Gas Interest or Oil and Gas Lease be lost through failure of title, which results in a
8 reduction of interest from that shown on Exhibit "A," the party credited with contributing the affected Lease or Interest
9 (including, if applicable, a successor in interest to such party) shall have ninety (90) days from final determination of title
10 failure to acquire a new lease or other instrument curing the entirety of the title failure, which acquisition will not be subject
11 to Article VIII.B., and failing to do so, this agreement, nevertheless, shall continue in force as to all remaining Oil and Gas
12 Leases and Interests; and,

13 (a) The party credited with contributing the Oil and Gas Lease or Interest affected by the title failure (including, if
14 applicable, a successor in interest to such party) shall bear alone the entire loss and it shall not be entitled to recover from
15 Operator or the other parties any development or operating costs which it may have previously paid or incurred, but there
16 shall be no additional liability on its part to the other parties hereto by reason of such title failure;

17 (b) There shall be no retroactive adjustment of expenses incurred or revenues received from the operation of the
18 Lease or Interest which has failed, but the interests of the parties contained on Exhibit "A" shall be revised on an acreage
19 basis, as of the time it is determined finally that title failure has occurred, so that the interest of the party whose Lease or
20 Interest is affected by the title failure will thereafter be reduced in the Contract Area by the amount of the Lease or Interest failed;

21 (c) If the proportionate interest of the other parties hereto in any producing well previously drilled on the Contract
22 Area is increased by reason of the title failure, the party who bore the costs incurred in connection with such well attributable
23 to the Lease or Interest which has failed shall receive the proceeds attributable to the increase in such interest (less costs and
24 burdens attributable thereto) until it has been reimbursed for unrecovered costs paid by it in connection with such well
25 attributable to such failed Lease or Interest;

26 (d) Should any person not a party to this agreement, who is determined to be the owner of any Lease or Interest
27 which has failed, pay in any manner any part of the cost of operation, development, or equipment, such amount shall be paid
28 to the party or parties who bore the costs which are so refunded;

29 (e) Any liability to account to a person not a party to this agreement for prior production of Oil and Gas which arises
30 by reason of title failure shall be borne severally by each party, other than an unleased mineral owner (including a predecessor to a current
31 party) who received
32 production for which such accounting is required based on the amount of such production received, and each such party shall
33 severally indemnify, defend and hold harmless all other parties hereto for any such liability to account;

34 (f) No charge shall be made to the joint account for legal expenses, fees or salaries in connection with the defense of
35 the Lease or Interest claimed to have failed, but if the party contributing such Lease or Interest hereto elects to defend its title
36 it shall bear all expenses in connection therewith; and

37 (g) If any party is given credit on Exhibit "A" to a Lease or Interest which is limited solely to ownership of an
38 interest in the wellbore of any well or wells and the production therefrom, such party's absence of interest in the remainder
39 of the Contract Area shall be considered a Failure of Title as to such remaining Contract Area unless that absence of interest
40 is reflected on Exhibit "A."

41 2. Loss by Non-Payment or Erroneous Payment of Amount Due: If, through mistake or oversight, any rental, shut-in well
42 payment, minimum royalty or royalty payment, or other payment necessary to maintain all or a portion of an Oil and Gas
43 Lease or interest is not paid or is erroneously paid, and as a result a Lease or Interest terminates, there shall be no monetary
44 liability against the party who failed to make such payment. Unless the party who failed to make the required payment
45 secures a new Lease or Interest covering the same interest within ninety (90) days from the discovery of the failure to make
46 proper payment, which acquisition will not be subject to Article VIII.B., the interests of the parties reflected on Exhibit "A"
47 shall be revised on an acreage basis, effective as of the date of termination of the Lease or Interest involved, and the party
48 who failed to make proper payment will no longer be credited with an interest in the Contract Area on account of ownership
49 of the Lease or Interest which has terminated. If the party who failed to make the required payment shall not have been fully
50 reimbursed, at the time of the loss, from the proceeds of the sale of Oil and Gas attributable to the lost Lease or Interest,
51 it shall be reimbursed for unrecovered actual costs previously paid by it (but not for its share of the cost of any dry hole
52 previously drilled or wells previously abandoned) from so much of the following as is necessary to effect reimbursement:

53 (a) Proceeds of Oil and Gas produced prior to termination of the Lease or Interest, less operating expenses and lease
54 burdens chargeable hereunder to the person who failed to make payment, previously accrued to the credit of the lost Lease or
55 Interest, on an acreage basis, up to the amount of unrecovered costs;

56 (b) Proceeds of Oil and Gas, less operating expenses and lease burdens chargeable hereunder to the person who failed
57 to make payment, up to the amount of unrecovered costs attributable to that portion of Oil and Gas thereafter produced and
58 marketed (excluding production from any wells thereafter drilled) which, in the absence of such Lease or Interest termination,
59 would be attributable to the lost Lease or Interest on an acreage basis and which as a result of such Lease or Interest
60 termination is credited to other parties, the proceeds of said portion of the Oil and Gas to be contributed by the other parties
61 in proportion to their respective interests reflected on Exhibit "A"; and,

62 (c) Any monies, up to the amount of unrecovered costs, that may be paid by any party who is, or becomes, the owner
63 of the Lease or Interest lost, for the privilege of participating in the Contract Area or becoming a party to this agreement.

64 3. Other Losses: All losses of Leases or Interests committed to this agreement, other than those set forth in Articles
65 IV.B.1. and IV.B.2. above, shall be joint losses and shall be borne by all parties in proportion to their interests shown on
66 Exhibit "A." This shall include but not be limited to the loss of any Lease or Interest through failure to develop or because
67 express or implied covenants have not been performed (other than performance which requires only the payment of money),
68 and the loss of any Lease by expiration at the end of its primary term if it is not renewed or extended. There shall be no
69 readjustment of interests in the remaining portion of the Contract Area on account of any joint loss.

70 4. Curing Title: In the event of a Failure of Title under Article IV.B.1. or a loss of title under Article IV.B.2. above, any
71 Lease or Interest acquired by any party hereto (other than the party whose interest has failed or was lost) during the ninety
72 (90) day period provided by Article IV.B.1. and Article IV.B.2. above covering all or a portion of the interest that has failed
73 or was lost shall be offered at cost to the party whose interest has failed or was lost, and the provisions of Article VIII.B.
74 shall not apply to such acquisition.

ARTICLE V.
OPERATOR

A. Designation and Responsibilities of Operator:

American Energy Utica, LLC shall be the Operator of the Contract Area, and shall conduct and direct and have full control of all operations on the Contract Area as permitted and required by, and within the limits of this agreement. In its performance of services hereunder for the Non-Operators, Operator shall be an independent contractor not subject to the control or direction of the Non-Operators except as to the type of operation to be undertaken in accordance with the election procedures contained in this agreement. Operator shall not be deemed, or hold itself out as, the agent of the Non-Operators with authority to bind them to any obligation or liability assumed or incurred by Operator as to any third party. Operator shall conduct its activities under this agreement as a reasonable prudent operator, in a good and workmanlike manner, with due diligence and dispatch, in accordance with good oilfield practice, and in compliance with applicable law and regulation, but in no event shall it have any liability as Operator to the other parties / for losses sustained or liabilities incurred except such as may result from gross negligence or willful misconduct.

B. Resignation or Removal of Operator and Selection of Successor:

1. Resignation or Removal of Operator: Operator may resign at any time by giving written notice thereof to Non-Operators. If Operator terminates its legal existence, no longer owns an interest hereunder in the Contract Area, or is no longer capable of serving as Operator, Operator shall be deemed to have resigned without any action by Non-Operators, except the selection of a successor. Operator may be removed only for good cause by the affirmative vote of Non-Operators owning a majority interest based on ownership as shown on Exhibit "A" remaining after excluding the voting interest of Operator; such vote shall not be deemed effective until a written notice has been delivered to the Operator by a Non-Operator detailing the alleged default and Operator has failed to cure the default within thirty (30) days from its receipt of the notice or, if the default concerns an operation then being conducted, within forty-eight (48) hours of its receipt of the notice. For purposes hereof, "good cause" shall mean not only gross negligence or willful misconduct but also the material breach of or inability to meet the standards of operation contained in Article V.A. or material failure or inability to perform its obligations under this agreement.

Subject to Article VII.D.1., such resignation or removal shall not become effective until 7:00 o'clock A.M. on the first day of the calendar month following the expiration of ninety (90) days after the giving of notice of resignation by Operator or action by the Non-Operators to remove Operator, unless a successor Operator has been selected and assumes the duties of Operator at an earlier date. Operator, after effective date of resignation or removal, shall be bound by the terms hereof as a Non-Operator. A change of a corporate name or structure of Operator or transfer of Operator's interest to any / single subsidiary, parent or successor corporation shall not be the basis for removal of Operator.

2. Selection of Successor Operator: Upon the resignation or removal of Operator under any provision of this agreement, a successor Operator shall be selected by the parties. The successor Operator shall be selected from the parties owning an interest in the Contract Area at the time such successor Operator is selected. The successor Operator shall be selected by the affirmative vote of two (2) or more parties owning a majority interest based on ownership as shown on Exhibit "A"; provided, however, if an Operator which has been removed or is deemed to have resigned / fails to vote or votes only to succeed itself / the successor Operator shall be selected by the affirmative vote of the party or parties owning a majority interest based on ownership as shown on Exhibit "A" remaining after excluding the voting interest of the Operator that was removed or resigned / and its affiliates and, provided further, that the requirement for two (2) or more parties shall not apply in the event that two (2) or fewer parties are entitled to vote. The former Operator shall promptly deliver to the successor Operator all records and data relating to the operations conducted by the former Operator to the extent such records and data are not already in the possession of the successor operator. Any cost of obtaining or copying the former Operator's records and data shall be charged to the joint account.

3. Effect of Bankruptcy: If Operator becomes insolvent, bankrupt or is placed in receivership, it shall be deemed to have resigned without any action by Non-Operators, except the selection of a successor. If a petition for relief under the federal bankruptcy laws is filed by or against Operator, and the removal of Operator is prevented by the / federal bankruptcy court, all Non-Operators and Operator shall comprise an interim operating committee to serve until Operator has elected to reject or assume this agreement pursuant to the Bankruptcy Code, and an election to reject this agreement by Operator as a debtor in possession, or by a trustee in bankruptcy, shall be deemed a resignation as Operator without any action by Non-Operators, except the selection of a successor. During the period of time the operating committee controls operations, all actions shall require the approval of two (2) or more parties owning a majority interest based on ownership as shown on Exhibit "A." In the event there are only two (2) parties to this agreement, during the period of time the operating committee controls operations, a third party acceptable to Operator, Non-Operator and the federal bankruptcy court shall be selected as a member of the operating committee, and all actions shall require the approval of two (2) members of the operating committee without regard for their interest in the Contract Area based on Exhibit "A."

C. Employees and Contractors:

The number of employees or contractors used by Operator in conducting operations hereunder, their selection, and the hours of labor and the compensation for services performed shall be determined Operator, and all such employees or contractors shall be the employees or contractors of Operator.

D. Rights and Duties of Operator:

1. Competitive Rates and Use of Affiliates: All / wells drilled on the Contract Area shall be drilled / on a competitive basis at the usual rates prevailing in the / area. If it so desires, Operator may employ its own tools and equipment in performing such operations / state where the services were rendered /, but its charges therefor shall not exceed the prevailing rates in the / area and the rate of such charges shall be agreed upon by the parties in writing before drilling operations are commenced, and such work shall be performed by Operator under the same terms and conditions as are customary and usual in the area in contracts of independent contractors who are doing work of a similar nature. All work performed or materials supplied by affiliates or related parties of Operator shall be performed or supplied at competitive rates, pursuant to written agreement, and in accordance with customs and standards prevailing in the industry.

2. Discharge of Joint Account Obligations: Except as herein otherwise specifically provided, Operator shall promptly pay and discharge expenses incurred in the development and operation of the Contract Area pursuant to this agreement and shall charge each of the parties hereto with their respective proportionate shares upon the expense basis provided in Exhibit "C." Operator shall keep an accurate record of the joint account hereunder, showing expenses incurred and charges and credits made and received.

3. Protection from Liens: Operator shall pay, or cause to be paid, as and when they become due and payable, all accounts of contractors and suppliers and wages and salaries for services rendered or performed, and for materials supplied on, to or in respect of the Contract Area or any operations for the joint account thereof, and shall keep the Contract Area free from liens and

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1 encumbrances resulting therefrom except for those resulting from a bona fide dispute as to services rendered or
2 materials supplied.

3
4 4. Custody of Funds: Operator shall hold for the account of the Non-Operators any funds of the Non-Operators advanced
5 or paid to the Operator, either for the conduct of operations hereunder or as a result of the sale of production from the
6 Contract Area, and such funds shall remain the funds of the Non-Operators on whose account they are advanced or paid until
7 used for their intended purpose or otherwise delivered to the Non-Operators or applied toward the payment of debts as
8 provided in Article VII.B. Nothing in this paragraph shall be construed to establish a fiduciary relationship between Operator
9 and Non-Operators for any purpose other than to account for Non-Operator funds as herein specifically provided. Nothing in
10 this paragraph shall require the maintenance by Operator of separate accounts for the funds of Non-Operators unless the
11 parties otherwise specifically agree.

12 5. Access to Contract Area and Records: Operator shall, except as otherwise provided herein, permit each ~~Non-Operator~~ ^{Consenting Party}
13 or its duly authorized representative, at the ~~Non-Operator's~~ ^{Consenting Party's} sole risk and cost, full and free access at all reasonable times to
14 all operations of every kind and character being conducted for the joint account on the Contract Area and to the records of
15 operations conducted thereon or production therefrom, including Operator's books and records relating thereto. Such access
16 rights shall not be exercised in a manner interfering with Operator's conduct of an operation hereunder and shall not obligate
17 Operator to furnish any geologic or geophysical data of an interpretive nature unless the cost of preparation of such
18 interpretive data was charged to the joint account. Operator will furnish to each ~~Non-Operator~~ ^{Consenting Party} upon request copies of any
19 and all reports and information obtained by Operator in connection with production and related items, including, without
20 limitation, meter and chart reports, production purchaser statements, run tickets and monthly gauge reports, but excluding
21 purchase contracts and pricing information to the extent not applicable to the production of the Non-Operator seeking the
22 information. Any audit of Operator's records relating to amounts expended and the appropriateness of such expenditures
23 shall be conducted in accordance with the audit protocol specified in Exhibit "C."

24 6. Filing and Furnishing Governmental Reports: Operator will file, and upon written request promptly furnish copies to
25 each requesting ~~Non-Operator~~ ^{Consenting Party} not in default of its payment obligations, all operational notices, reports or applications
26 required to be filed by local, State, Federal or Indian agencies or authorities having jurisdiction over operations hereunder.
27 Each Non-Operator shall provide to Operator on a timely basis all information necessary to Operator to make such filings.

28 7. Drilling and Testing Operations: The following provisions shall apply to each well drilled ~~hereunder, including but not~~ ^{Sidetracked, Deepened, Completed, Recompleted or Plugged Back}
29 limited to the Initial Well:

30 (a) Operator will promptly advise ~~Non-Operators~~ ^{each Consenting Party} of the date on which the well is spudded, or the date on which
31 drilling operations are commenced.

32 (b) Operator will send to ~~Non-Operators~~ ^{each Consenting Party} such reports, test results and notices regarding the progress of operations on the
33 well as the ~~Non-Operators~~ ^{Consenting Parties} shall reasonably request, including, but not limited to, daily drilling reports, completion reports, and well logs.

34 (c) Operator shall adequately test all Zones encountered which may reasonably be expected to be capable of producing
35 Oil and Gas in paying quantities as a result of examination of the electric log or any other logs or cores or tests conducted
36 hereunder.

37 8. Cost Estimates: Upon request of any Consenting Party, Operator shall furnish estimates of current and cumulative costs
38 incurred for the joint account at reasonable intervals during the conduct of any operation pursuant to this agreement.
39 Operator shall not be held liable for errors in such estimates so long as the estimates are made in good faith.

40 9. Insurance: At all times while operations are conducted hereunder, Operator shall comply with the workers
41 compensation law of the state where the operations are being conducted; provided, however, that Operator may be a self-
42 insurer for liability under said compensation laws in which event the only charge that shall be made to the joint account shall
43 be as provided in Exhibit "C." Operator shall also carry or provide insurance for the benefit of the joint account of the parties
44 as outlined in Exhibit "D" attached hereto and made a part hereof. Operator shall require all contractors engaged in work on
45 or for the Contract Area to comply with the workers compensation law of the state where the operations are being conducted
46 and to maintain such other insurance as Operator may require.

47 In the event automobile liability insurance is specified in said Exhibit "D," or subsequently receives the approval of the
48 parties, no direct charge shall be made by Operator for premiums paid for such insurance for Operator's automotive
49 equipment.

50 **ARTICLE VI.**

51 **DRILLING AND DEVELOPMENT.**

52 **A. Initial Well:**

53 Operator anticipates commencing the drilling of the Initial Well within one (1) years of the effective
54 date of the Unitization Order issued by the appropriate regulatory committee,

55 and shall thereafter continue the drilling of the well with due diligence to a depth sufficient in the Operator's reasonable opinion, to
56 adequately test the Utica/Point Pleasant formation with the Initial Well.

57 In the event a Party elects not to participate (a Non-Consenting Party) in the Initial Well proposed in the Contract Area
58 pursuant to Article VI.A., upon the timely commencement of actual drilling operations on such Well, such Non-Consenting Party
59 shall be deemed to have relinquished to the Consenting Parties, and the Consenting Parties shall own and be entitled to receive, in
60 proportion to their respective interests, all of such Non-Consenting Party's interest in the well and share of production therefrom
61 until the proceeds of the sale of such share, calculated at the well, or market value thereof if such share is not sold, (after deducting
62 production taxes, excise taxes, royalty, overriding royalty and other interests not excepted by Article III.D. payable out of or
63 measured by the production from such well accruing with respect to such interest until it reverts) shall equal the total of the
64 following: (a) 500% of such Non-Consenting Party's share of the cost of any newly acquired surface equipment beyond the
65 wellhead connections (including, but not limited to, stock tanks, separators, treaters, pumping equipment and piping), plus 500%
66 of such Non-Consenting Party's share of the cost of operation of the well commencing with first production and continuing until
67 such Non-Consenting Party's relinquished interest shall revert to it under other provisions of this Article, it being agreed that such
68 Non-Consenting Party's share of such costs and equipment will be that interest which would have been chargeable to such Non-
69 Consenting Party had it participated in the well from the beginning of the operations; and (b) 500% of that portion of the costs and
70 expenses of drilling, testing and completing, after deducting any cash contributions received under Article III.C., and 500% of that
71 portion of the cost of newly acquired equipment in the well (to and including wellhead connections), which would have been
72 chargeable to such Non-Consenting Party if it had participated therein.
73
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1 The drilling of the Initial Well and the participation therein by all parties is obligatory, subject to Article VI.C.1. as to participation
2 in Completion operations and Article VI.F. as to termination of operations and Article XI as to occurrence of force majeure.

3 **B. Subsequent Operations:**

4 The drilling of the Initial Well and the participation therein by all parties is obligatory, subject to Article VI.C.1. as to participation
5 in Completion operations and Article VI.F. as to termination of operations and Article XI as to occurrence of force majeure.

6 **B. Subsequent Operations:**

7
8 Arca 1. Proposed Operations: If any party, except an unleased mineral owner, hereto should desire to drill any well on the Contract
9 other than the Initial Well.

10 if any party should desire to Rework, Sidetrack, Deepen, Recomplete or Plug Back a dry hole or a well no longer capable of
11 producing in paying quantities in which such party has not otherwise relinquished its interest in the proposed objective Zone under
12 this agreement, the party desiring to drill, Rework, Sidetrack, Deepen, Recomplete or Plug Back such a well shall give written
13 notice of the proposed operation to the parties who have not otherwise relinquished their interest in such objective Zone under this

14 agreement and to all other parties in the case of a proposal for Sidetracking or Deepening, specifying the work to be
15 performed, the location, proposed depth, objective Zone and the estimated cost of the operation. The parties to whom such a
16 notice is delivered shall have thirty (30) days after receipt of the notice within which to notify the party proposing to do the work
17 whether they elect to participate in the cost of the proposed operation. If a drilling rig is on location, notice of a proposal to

18 Rework, Sidetrack, Recomplete, Plug Back or Deepen may be given by telephone and the response period shall be limited to forty-
19 eight (48) hours, ^{inclusive} / ~~exclusive~~ of Saturday, Sunday and legal holidays. Failure of a party to whom such notice is delivered to reply
20 within the period above fixed shall constitute an election by that party not to participate in the cost of the proposed operation.
21 Any proposal by a party to conduct an operation conflicting with the operation initially proposed shall be delivered to all parties
22 within the time and in the manner provided in Article VI.B.6. **No Party may elect to participate in any well proposed pursuant to this
23 Agreement with less than its full and undivided working interest in the Contract Area.**

24 If all parties to whom such notice is delivered elect to participate in such a proposed operation, the parties shall be
25 contractually committed to participate therein provided such operations are commenced within the time period hereafter set
26 forth, and Operator shall, no later than ninety (90) days after expiration of the notice period of thirty (30) days (or as
27 promptly as practicable after the expiration of the forty-eight (48) hour period when a drilling rig is on location, as the case
28 may be), actually commence the proposed operation and thereafter complete it with due diligence at the risk and expense of
29 the parties participating therein; provided, however, said commencement date may be extended upon written notice of same
30 by Operator to the other parties, for a period of up to thirty (30) additional days if, in the sole opinion of Operator, such
31 additional time is reasonably necessary to obtain permits from governmental authorities, surface rights (including rights-of-
32 way) or appropriate drilling equipment, or to complete title examination or curative matter required for title approval or
33 acceptance. If the actual operation has not been commenced within the time provided (including any extension thereof) as
34 specifically permitted herein or in the force majeure provisions of Article XI) and if any party hereto still desires to conduct
35 said operation, written notice proposing same must be resubmitted to the other parties in accordance herewith as if no prior
36 proposal had been made. Those parties that did not participate in the drilling of a well for which a proposal to Deepen or
37 Sidetrack is made hereunder shall, if such parties desire to participate in the proposed Deepening or Sidetracking operation,
38 reimburse the Drilling Parties in accordance with Article VI.B.4. in the event of a Deepening operation and in accordance
39 with Article VI.B.5. in the event of a Sidetracking operation.

40 **2. Operations by Less Than All Parties:**

41 (a) Determination of Participation. If any party to whom such notice is delivered as provided in Article VI.B.1. or

42 VI.C.1. (Option No. 2) elects not to participate in the proposed operation, then, in order to be entitled to the benefits of this
43 Article, the Operator or parties giving the notice and such other parties as shall elect to participate in the operation shall, no
44 later than ninety (90) days after the expiration of the notice period of thirty (30) days (or as promptly as practicable after the
45 expiration of the forty-eight (48) hour period when a drilling rig is on location, as the case may be) actually commence the
46 proposed operation * and complete it with due diligence. Operator shall perform all work for the account of the Consenting
47 Parties; provided, however, if no drilling rig or other equipment is on location, and if Operator is a Non-Consenting Party,
48 the Consenting Parties shall either: (i) request Operator to perform the work required by such proposed operation for the
49 account of the Consenting Parties, or (ii) designate one of the Consenting Parties as Operator to perform such work. The
50 rights and duties granted to and imposed upon the Operator under this agreement are granted to and imposed upon the party
51 designated as Operator for an operation in which the original Operator is a Non-Consenting Party. Consenting Parties, when
52 conducting operations on the Contract Area pursuant to this Article VI.B.2., shall comply with all terms and conditions of this
53 agreement. ***Nothing contained herein shall prohibit Operator from actually commencing the proposed operation before the
54 expiration of the notice period, nor shall such commencement affect in any way the validity of a party's election or deemed election.**

55 If less than all parties approve any proposed operation, the proposing party, immediately after the expiration of the
56 applicable notice period, shall advise all Parties of the total interest of the parties approving such operation and its
57 recommendation as to whether the Consenting Parties should proceed with the operation as proposed. Each Consenting Party,
58 within forty-eight (48) hours (exclusive of Saturday, Sunday, and legal holidays) after delivery of such notice, shall advise the
59 Operator of its desire to (i) limit participation to such party's interest as shown on Exhibit "A" or (ii) carry only its
60 proportionate part (determined by dividing such party's interest in the Contract Area by the interests of all Consenting Parties in
61 the Contract Area) of Non-Consenting Parties' interests, or (iii) carry its proportionate part (determined as provided in (ii)) of
62 Non-Consenting Parties' interests together with all or a portion of its proportionate part of any Non-Consenting Parties'
63 interests that any Consenting Party did not elect to take. Any interest of Non-Consenting Parties that is not carried by a
64 Consenting Party shall be deemed to be carried by the party proposing the operation if such party does not withdraw its
65 proposal. Failure to advise the proposing party within the time required shall be deemed an election under (i). In the event a
66 drilling rig is on location, notice may be given by telephone, and the time permitted for such a response shall not exceed a
67 total of forty-eight (48) hours (exclusive of Saturday, Sunday and legal holidays). The Operator party, at its election, may
68 withdraw such proposal if there is less than 100% participation and shall notify all parties of such decision within ten (10)
69 days, or within twenty-four (24) hours if a drilling rig is on location, following expiration of the applicable response period.
70 If 100% subscription to the proposed operation is obtained, the proposing party shall promptly notify the Consenting Parties
71 of their proportionate interests in the operation and the party serving as Operator shall commence such operation within the
72 period provided in Article VI.B.1., subject to the same extension right as provided therein.

73 (b) Relinquishment of Interest for Non-Participation. The entire cost and risk of conducting such operations shall be
74 borne by the Consenting Parties in the proportions they have elected to bear same under the terms of the preceding
75 paragraph. Consenting Parties shall keep the leasehold estates involved in such operations free and clear of all liens and
76 encumbrances of every kind created by or arising from the operations of the Consenting Parties. If such an operation results
77 in a dry hole, then subject to Articles VI.B.6. and VI.E.3., the Consenting Parties shall plug and abandon the well and restore

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1 the surface location at their sole cost, risk and expense; provided, however, that those Non-Consenting Parties that
2 participated in the drilling, Deepening or Sidetracking of the well shall remain liable for, and shall pay, their proportionate
3 shares of the cost of plugging and abandoning the well and restoring the surface location insofar only as those costs were not
4 increased by the subsequent operations of the Consenting Parties. If any well drilled, Reworked, Sidetracked, Deepened,
5 Recompleted or Plugged Back under the provisions of this Article results in a well capable of producing Oil and/or Gas in
6 paying quantities, the Consenting Parties shall Complete and equip the well to produce at their sole cost and risk, and the
7 well shall then be turned over to Operator (if the Operator did not conduct the operation) and shall be operated by it at the
8 expense and for the account of the Consenting Parties. Upon commencement of operations for the drilling, Reworking,
9 Sidetracking, Recompleting, Deepening or Plugging Back of any such well by Consenting Parties in accordance with the
10 provisions of this Article, each Non-Consenting Party shall be deemed to have relinquished to Consenting Parties, and the
11 Consenting Parties shall own and be entitled to receive, in proportion to their respective interests, all of such Non-
12 Consenting Party's interest in the well and share of production therefrom or, in the case of a Reworking, Sidetracking, Deepening,
13 Recompleting or Plugging Back, or a Completion pursuant to Article VI.C.1. Option No. 2, all of such Non-
14 Consenting Party's interest in the production obtained from the operation in which the Non-Consenting Party did not elect
15 to participate. Such relinquishment shall be effective until the proceeds of the sale of such share, calculated at the well, or
16 market value thereof if such share is not sold (after deducting applicable ad valorem, production, severance, and excise taxes,
17 royalty, overriding royalty and other interests not excepted by Article III.C. payable out of or measured by the production
18 from such well accruing with respect to such interest until it reverts), shall equal the total of the following:

19 (i) 500 % of each such Non-Consenting Party's share of the cost of any newly acquired surface equipment
20 beyond the wellhead connections (including but not limited to stock tanks, separators, treaters, pumping equipment and
21 piping), plus ~~100%~~^{500%} of each such Non-Consenting Party's share of the cost of operation of the well commencing with first
22 production and continuing until each such Non-Consenting Party's relinquished interest shall revert to it under other
23 provisions of this Article, it being agreed that each Non-Consenting Party's share of such costs and equipment will be that
24 interest which would have been chargeable to such Non-Consenting Party had it participated in the well from the beginning
25 of the operations; and

26 (ii) 500 % of (a) that portion of the costs and expenses of drilling, Reworking, Sidetracking, Deepening,
27 Plugging Back, testing, Completing, and Recompleting, after deducting any cash contributions received under Article VIII.C.,
28 and of (b) that portion of the cost of newly acquired equipment in the well (to and including the wellhead connections),
29 which would have been chargeable to such Non-Consenting Party if it had participated therein. See Article XVI.N for application of non-consent
30 penalty for Non-Consenting Unleased Mineral Owner.

31 Notwithstanding anything to the contrary in this Article VI.B., if the well does not reach the deepest objective Zone
32 described in the notice proposing the well for reasons other than the encountering of granite or practically impenetrable
33 substance or other condition in the hole rendering further operations impracticable, Operator shall give notice thereof to each
34 Non-Consenting Party who submitted or voted for an alternative proposal under Article VI.B.6. to drill the well to a
35 shallower Zone than the deepest objective Zone proposed in the notice under which the well was drilled, and each such Non-
36 Consenting Party shall have the option to participate in the initial proposed Completion of the well by paying its share of the
37 cost of drilling the well to its actual depth, calculated in the manner provided in Article VI.B.4. (a). If any such Non-
38 Consenting Party does not elect to participate in the first Completion proposed for such well, the relinquishment provisions
39 of this Article VI.B.2. (b) shall apply to such party's interest.

40 (c) Reworking, Recompleting or Plugging Back. An election not to participate in the drilling, Sidetracking or
41 Deepening of a well shall be deemed an election not to participate in any Reworking or Plugging Back operation proposed in
42 such a well, or portion thereof, to which the initial non-consent election applied that is conducted at any time prior to full
43 recovery by the Consenting Parties of the Non-Consenting Party's recoupment amount. Similarly, an election not to
44 participate in the Completing or Recompleting of a well shall be deemed an election not to participate in any Reworking
45 operation proposed in such a well, or portion thereof, to which the initial non-consent election applied that is conducted at
46 any time prior to full recovery by the Consenting Parties of the Non-Consenting Party's recoupment amount. Any such
47 Reworking, Recompleting or Plugging Back operation conducted during the recoupment period shall be deemed part of the
48 cost of operation of said well and there shall be added to the sums to be recouped by the Consenting Parties 500 % of
49 that portion of the costs of the Reworking, Recompleting or Plugging Back operation which would have been chargeable to
50 such Non-Consenting Party had it participated therein. If such a Reworking, Recompleting or Plugging Back operation is
51 proposed during such recoupment period, the provisions of this Article VI.B. shall be applicable as between said Consenting
52 Parties in said well.

53 (d) Recoupment Matters. During the period of time Consenting Parties are entitled to receive Non-Consenting Party's
54 share of production, or the proceeds therefrom, Consenting Parties shall be responsible for the payment of all ad valorem,
55 production, severance, excise, gathering and other taxes, and all royalty, overriding royalty and other burdens applicable to
56 Non-Consenting Party's share of production not excepted by Article III.C.

57 In the case of any Reworking, Sidetracking, Plugging Back, Recompleting or Deepening operation, the Consenting
58 Parties shall be permitted to use, free of cost, all casing, tubing and other equipment in the well, but the ownership of all
59 such equipment shall remain unchanged; and upon abandonment of a well after such Reworking, Sidetracking, Plugging Back,
60 Recompleting or Deepening, the Consenting Parties shall account for all such equipment to the owners thereof, with each
61 party receiving its proportionate part in kind or in value, less cost of salvage.

62 Within ninety (90) days after the completion of any operation under this Article, the party conducting the operations
63 for the Consenting Parties shall furnish each Non-Consenting Party with an inventory of the equipment in and connected to
64 the well, and an itemized statement of the cost of drilling, Sidetracking, Deepening, Plugging Back, testing, Completing,
65 Recompleting, and equipping the well for production; or, at its option, the operating party, in lieu of an itemized statement
66 of such costs of operation, may submit a detailed statement of monthly billings. Each month thereafter, during the time the
67 Consenting Parties are being reimbursed as provided above, the party conducting the operations for the Consenting Parties
68 shall furnish the Non-Consenting Parties with an itemized statement of all costs and liabilities incurred in the operation of
69 the well, together with a statement of the quantity of Oil and Gas produced from it and the amount of proceeds realized from
70 the sale of the well's working interest production during the preceding month. In determining the quantity of Oil and Gas
71 produced during any month, Consenting Parties shall use industry accepted methods such as but not limited to metering or
72 periodic well tests. Any amount realized from the sale or other disposition of equipment newly acquired in connection with
73 any such operation which would have been owned by a Non-Consenting Party had it participated therein shall be credited
74 against the total unreturned costs of the work done and of the equipment purchased in determining when the interest of such

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1 Non-Consenting Party shall revert to it as above provided; and if there is a credit balance, it shall be paid to such Non-
2 Consenting Party.

3 If and when the Consenting Parties recover from a Non-Consenting Party's relinquished interest the amounts provided
4 for above, the relinquished interests of such Non-Consenting Party shall automatically revert to it as of 7:00 a.m. on the ~~day~~ ^{first day of the month}
5 following the day on which such recoupment occurs, and, from and after such reversion, such Non-Consenting Party shall
6 own the same interest in such well, the material and equipment in or pertaining thereto, and the production therefrom as
7 such Non-Consenting Party would have been entitled to had it participated in the drilling, Sidetracking, Reworking,
8 Deepening, Re-completing or Plugging Back of said well. Thereafter, such Non-Consenting Party shall be charged with and
9 shall pay its proportionate part of the further costs of the operation of said well in accordance with the terms of this
10 agreement and Exhibit "C" attached hereto.

11 3. Stand-By Costs: When a well which has been drilled or Deepened has reached its authorized depth and all tests have
12 been completed and the results thereof furnished to the parties, or when operations on the well have been otherwise
13 terminated pursuant to Article VI.F., stand-by costs incurred pending response to a party's notice proposing a Reworking,
14 Sidetracking, Deepening, Re-completing, Plugging Back or Completing operation in such a well (including the period required
15 under Article VI.B.6. to resolve competing proposals) shall be charged and borne as part of the drilling or Deepening
16 operation just completed. Stand-by costs subsequent to all parties responding, or expiration of the response time permitted,
17 whichever first occurs, and prior to agreement as to the participating interests of all Consenting Parties pursuant to the terms
18 of the second grammatical paragraph of Article VI.B.2. (a), shall be charged to and borne as part of the proposed operation,
19 but if the proposal is subsequently withdrawn because of insufficient participation, such stand-by costs shall be allocated
20 between the Consenting Parties in the proportion each Consenting Party's interest as shown on Exhibit "A" bears to the total
21 interest as shown on Exhibit "A" of all Consenting Parties.

22 In the event that notice for a Sidetracking operation is given while the drilling rig to be utilized is on location, any party
23 may request and receive up to five (5) additional days after expiration of the forty-eight hour response period specified in
24 Article VI.B.1. within which to respond by paying for all stand-by costs and other costs incurred during such extended
25 response period; Operator may require such party to pay the estimated stand-by time in advance as a condition to extending
26 the response period. If more than one party elects to take such additional time to respond to the notice, stand-by costs shall be
27 allocated between the parties taking additional time to respond on a day-to-day basis in the proportion each electing party's
28 interest as shown on Exhibit "A" bears to the total interest as shown on Exhibit "A" of all the electing parties.

29 4. Deepening: If less than all parties elect to participate in a drilling, Sidetracking, or Deepening operation proposed
30 pursuant to Article VI.B.1., the interest relinquished by the Non-Consenting Parties to the Consenting Parties under Article
31 VI.B.2. shall relate only and be limited to the lesser of (i) the total depth actually drilled or (ii) the objective depth or Zone
32 of which the parties were given notice under Article VI.B.1. ~~("Initial Objective")~~ ^{Except as provided in Article XVI.E.2, such} / Such well shall not be Deepened beyond the
33 Initial Objective without first complying with this Article to afford the Non-Consenting Parties the opportunity to participate
34 in the Deepening operation.

35 In the event any Consenting Party desires to drill or Deepen a Non-Consent Well ~~to a depth below the Initial Objective~~,
36 such party shall give notice thereof, complying with the requirements of Article VI.B.1., to all parties (including Non-
37 Consenting Parties). Thereupon, Articles VI.B.1. and 2. shall apply and all parties receiving such notice shall have the right to
38 participate or not participate in the Deepening of such well pursuant to said Articles VI.B.1. and 2. If a Deepening operation
39 is approved pursuant to such provisions, and if any Non-Consenting Party elects to participate in the Deepening operation,
40 such Non-Consenting party shall pay or make reimbursement (as the case may be) of the following costs and expenses.

41 (a) If the proposal to Deepen is made prior to the Completion of such well as a well capable of producing in paying
42 quantities, such Non-Consenting Party shall pay (or reimburse Consenting Parties for, as the case may be) that share of costs
43 and expenses incurred in connection with the drilling of said well from the surface to the Initial Objective which Non-
44 Consenting Party would have paid had such Non-Consenting Party agreed to participate therein, plus the Non-Consenting
45 Party's share of the cost of Deepening and of participating in any further operations on the well in accordance with the other
46 provisions of this Agreement; provided, however, all costs for testing and Completion or attempted Completion of the well
47 incurred by Consenting Parties prior to the point of actual operations to Deepen beyond the Initial Objective shall be for the
48 sole account of Consenting Parties.

49 (b) If the proposal is made for a Non-Consent Well that has been previously Completed as a well capable of producing
50 in paying quantities, but is no longer capable of producing in paying quantities, such Non-Consenting Party shall pay (or
51 reimburse Consenting Parties for, as the case may be) its proportionate share of all costs of drilling, Completing, and
52 equipping said well from the surface to the Initial Objective, calculated in the manner provided in paragraph (a) above, less
53 those costs recouped by the Consenting Parties from the sale of production from the well. The Non-Consenting Party shall
54 also pay its proportionate share of all costs of re-entering said well. The Non-Consenting Parties' proportionate part (based
55 on the percentage of such well Non-Consenting Party would have owned had it previously participated in such Non-Consent
56 Well) of the costs of salvable materials and equipment remaining in the hole and salvable surface equipment used in
57 connection with such well shall be determined in accordance with Exhibit "C." If the Consenting Parties have recouped the
58 cost of drilling, Completing, and equipping the well at the time such Deepening operation is conducted, then a Non-
59 Consenting Party may participate in the Deepening of the well with no payment for costs incurred prior to re-entering the
60 well for Deepening

61 The foregoing shall not imply a right of any Consenting Party to propose any Deepening for a Non-Consent Well prior
62 to the drilling of such well to its Initial Objective without the consent of the other Consenting Parties as provided in Article
63 VI.F.

64 5. Sidetracking: Any party having the right to participate in a proposed Sidetracking operation that does not own an
65 interest in the affected wellbore at the time of the notice shall, upon electing to participate, tender to the wellbore owners its
66 proportionate share (equal to its interest in the Sidetracking operation) of the value of that portion of the existing wellbore
67 to be utilized as follows:

68 (a) If the proposal is for Sidetracking an existing dry hole, reimbursement shall be on the basis of the actual costs
69 incurred in the initial drilling of the well down to the depth at which the Sidetracking operation is initiated.

70 (b) If the proposal is for Sidetracking a well which has previously produced, reimbursement shall be on the basis of
71 such party's proportionate share of drilling and equipping costs incurred in the initial drilling of the well down to the depth
72 at which the Sidetracking operation is conducted, calculated in the manner described in Article VI.B.4(b) above. Such party's
73 proportionate share of the cost of the well's salvable materials and equipment down to the depth at which the Sidetracking
74 operation is initiated shall be determined in accordance with the provisions of Exhibit "C."

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1 6. Order of Preference of Operations. Except as otherwise specifically provided in this agreement, if any party desires to
2 propose the conduct of an operation that conflicts with a proposal that has been made by a party under this Article VI, such
3 party shall have fifteen (15) days from delivery of the initial proposal, in the case of a proposal to drill a well or to perform
4 an operation on a well where no drilling rig is on location, or twenty-four (24) hours, exclusive of Saturday, Sunday and legal
5 holidays, from delivery of the initial proposal, if a drilling rig is on location for the well on which such operation is to be
6 conducted, to deliver to all parties entitled to participate in the proposed operation such party's alternative proposal, such
7 alternate proposal to contain the same information required to be included in the initial proposal. Each party receiving such
8 proposals shall elect by delivery of notice to Operator within five (5) days after expiration of the proposal period, or within
9 twenty-four (24) hours (exclusive of Saturday, Sunday and legal holidays) if a drilling rig is on location for the well that is the
10 subject of the proposals, to participate in one of the competing proposals. Any party not electing within the time required
11 shall be deemed not to have voted. The proposal receiving the vote of parties owning the largest aggregate percentage
12 interest of the parties voting shall have priority over all other competing proposals; in the case of a tie vote, the initial proposal shall prevail.
13 Operator shall deliver notice of such result to all parties entitled to participate in the operation
14 within five (5) days after expiration of the election period (or within twenty-four (24) hours, exclusive of Saturday, Sunday
15 and legal holidays, if a drilling rig is on location). Each party shall then have two (2) days (or twenty-four (24) hours if a rig
16 is on location) from receipt of such notice to elect by delivery of notice to Operator to participate in such operation or to
17 relinquish interest in the affected well pursuant to the provisions of Article VI.B.2.; failure by a party to deliver notice within
18 such period shall be deemed an election not to participate in the prevailing proposal.

19 7. Conformity to Spacing Pattern. Notwithstanding the provisions of this Article VI.B.2., it is agreed that no wells shall be
20 proposed to be drilled to or Completed in or produced from a Zone from which a well located elsewhere on the Contract
21 Area is producing, unless such well conforms to the then-existing well spacing pattern for such Zone, or such well has been approved as an
22 exception to the then-existing spacing pattern or zone by the appropriate regulatory agency.

23 8. Paying Wells. No party shall conduct any Reworking, Deepening, Plugging Back, Completion, Recompletion, or
24 Sidetracking operation under this agreement with respect to any well then capable of producing in paying quantities except
25 with the consent of all parties that have not relinquished interests in the well at the time of such operation.

26 **C. Completion of Wells; Reworking and Plugging Back:**

27 1. Completion: Without the consent of all parties, no well shall be drilled, Deepened or Sidetracked, except any well
28 drilled, Deepened or Sidetracked pursuant to the provisions of Article VI.B.2. of this agreement. Consent to the drilling,
29 Deepening or Sidetracking shall include:

30 For Horizontal Wells and Multi-Lateral Wells, all
31 Option No. 1: All necessary expenditures for the drilling, Deepening, equipping of the well, including tankage and/or surface
32 facilities. See also Article XVI.E.
33 For Vertical Wells, all
34 Option No. 2: All necessary expenditures for the drilling, Deepening or Sidetracking and testing of the well. When
35 such well has reached its authorized depth, and all logs, cores and other tests have been completed, and the results
36 thereof furnished to the parties, Operator shall give immediate notice to the Non-Operators having the right to
37 participate in a Completion attempt whether or not Operator recommends attempting to Complete the well,
38 together with Operator's AFE for Completion costs if not previously provided. The parties receiving such notice
39 shall have forty-eight (48) hours (exclusive of Saturday, Sunday and legal holidays) in which to elect by delivery of
40 notice to Operator to participate in a recommended Completion attempt or to make a Completion proposal with an
41 accompanying AFE. Operator shall deliver any such Completion proposal, or any Completion proposal conflicting
42 with Operator's proposal, to the other parties entitled to participate in such Completion in accordance with the
43 procedures specified in Article VI.B.6. Election to participate in a Completion attempt shall include consent to all
44 necessary expenditures for the Completing and equipping of such well, including necessary tankage and/or surface
45 facilities but excluding any stimulation operation not contained on the Completion AFE. Failure of any party
46 receiving such notice to reply within the period above fixed shall constitute an election by that party not
47 to participate in the cost of the Completion attempt; provided, that Article VI.B.6. shall control in the case of
48 conflicting Completion proposals. If one or more, but less than all of the parties, elect to attempt a Completion, the
49 provision of Article VI.B.2. hereof (the phrase "Reworking, Sidetracking, Deepening, Recompleting or Plugging
50 Back" as contained in Article VI.B.2. shall be deemed to include "Completing") shall apply to the operations
51 thereafter conducted by less than all parties; provided, however, that Article VI.B.2. shall apply separately to each
52 separate Completion or Recompletion attempt undertaken hereunder, and an election to become a Non-Consenting
53 Party as to one Completion or Recompletion attempt shall not prevent a party from becoming a Consenting Party
54 in subsequent Completion or Recompletion attempts regardless whether the Consenting Parties as to earlier
55 Completions or Recompletion have recouped their costs pursuant to Article VI.B.2.; provided further, that any
56 recoupment of costs by a Consenting Party shall be made solely from the production attributable to the Zone in
57 which the Completion attempt is made. Election by a previous Non-Consenting party to participate in a subsequent
58 Completion or Recompletion attempt shall require such party to pay its proportionate share of the cost of salvable
59 materials and equipment installed in the well pursuant to the previous Completion or Recompletion attempt,
60 insofar and only insofar as such materials and equipment benefit the Zone in which such party participates in a
61 Completion attempt. See also Article XVI.E.

62 2. Rework, Recomplete or Plug Back: No well shall be Reworked, Recompleted or Plugged Back except a well Reworked,
63 Recompleted, or Plugged Back pursuant to the provisions of Article VI.B.2. of this agreement. Consent to the Reworking,
64 Recompleting or Plugging Back of a well shall include all necessary expenditures in conducting such operations and
65 Completing and equipping of said well, including necessary tankage and/or surface facilities.

66 **D. Other Operations:**

67 Operator shall not undertake any single project reasonably estimated to require an expenditure in excess of Fifty Thousand
68 Dollars (\$ 50,000.00) except in connection with the
69 drilling, Sidetracking, Reworking, Deepening, Completing, Recompleting or Plugging Back of a well that has been previously
70 authorized by or pursuant to this agreement; provided, however, that, in case of explosion, fire, flood or other sudden
71 emergency, whether of the same or different nature, Operator may take such steps and incur such expenses as in its opinion
72 are required to deal with the emergency to safeguard life and property but Operator, as promptly as possible, shall report the
73 emergency to the other parties. If Operator prepares an AFE for its own use, Operator shall furnish any Non-Operator so
74 requesting an information copy thereof for any single project costing in excess of Fifty Thousand Dollars
(\$50,000.00). Any party who has not relinquished its interest in a well shall have the right to propose that
Operator perform repair work or undertake the installation of artificial lift equipment or ancillary production facilities such as

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1 salt water disposal wells or to conduct additional work with respect to a well drilled hereunder or other similar project (but
2 not including the installation of gathering lines or other transportation or marketing facilities, the installation of which shall
3 be governed by separate agreement between the parties) reasonably estimated to require an expenditure in excess of the
4 amount first set forth above in this Article VI.D. (except in connection with an operation required to be proposed under
5 Articles VI.B.1. or VI.C.1. Option No. 2, which shall be governed exclusively by those Articles). Operator shall deliver such
6 proposal to all parties entitled to participate therein. If within thirty (30) days thereof Operator secures the written consent
7 of any party or parties owning at least 80% of the interests of the parties entitled to participate in such operation,
8 each party having the right to participate in such project shall be bound by the terms of such proposal and shall be obligated
9 to pay its proportionate share of the costs of the proposed project as if it had consented to such project pursuant to the terms
10 of the proposal.

11
12 **E. Abandonment of Wells:**

13 1. Abandonment of Dry Holes: Except for any well drilled or Deepened pursuant to Article VI.B.2., any well which has
14 been drilled or Deepened under the terms of this agreement and is proposed to be completed as a dry hole shall not be plugged and
15 abandoned without the consent of all parties who participated in the costs of drilling the well. Should Operator, after diligent effort, be
16 unable to contact any party, or should any party fail to reply within forty-eight (48) hours (exclusive of Saturday, Sunday and legal holidays) after
17 delivery of notice of the proposal to plug and abandon such well, such party shall be deemed to have consented to the
18 proposed abandonment. All such wells shall be plugged and abandoned in accordance with applicable regulations and at the
19 cost, risk and expense of the parties who participated in the cost of drilling or Deepening such well. Any party who objects to
20 plugging and abandoning such well by notice delivered to Operator within forty-eight (48) hours (exclusive of Saturday,
21 Sunday and legal holidays) after delivery of notice of the proposed plugging shall take over the well as of the end of such
22 forty-eight (48) hour notice period and conduct further operations in search of Oil and/or Gas subject to the provisions of
23 Article VI.B.; failure of such party to provide proof reasonably satisfactory to Operator of its financial capability to conduct
24 such operations or to take over the well within such period or thereafter to conduct operations on such well or plug and
25 abandon such well shall entitle Operator to retain or take possession of the well and plug and abandon the well. The party
26 taking over the well shall indemnify Operator (if Operator is an abandoning party) and the other abandoning parties against
27 liability for any further operations conducted on such well except for the costs of plugging and abandoning the well and
28 restoring the surface, for which the abandoning parties shall remain proportionately liable.

29 2. Abandonment of Wells That Have Produced: Except for any well in which a Non-Consent operation has been
30 conducted hereunder for which the Consenting Parties have not been fully reimbursed as herein provided, any well which has
31 been completed as a producer shall not be plugged and abandoned without the consent of all parties ^{who participated in the cost of drilling the well}. If all parties consent to
32 such abandonment, the well shall be plugged and abandoned in accordance with applicable regulations and at the cost, risk
33 and expense of all the parties hereto. Failure of a party to reply within sixty (60) days of delivery of notice of proposed
34 abandonment shall be deemed an election to consent to the proposal. If, within sixty (60) days after delivery of notice of the
35 proposed abandonment of any well, all parties do not agree to the abandonment of such well, those wishing to continue its
36 operation from the Zone then open to production shall be obligated to take over the well as of the expiration of the
37 applicable notice period and shall indemnify Operator (if Operator is an abandoning party) and the other abandoning parties
38 ^{with respect to the well, including the costs of plugging and abandoning the well and restoring the surface} against liability for any further operations ~~on the well conducted by such parties~~. Failure of such party or parties to provide
39 proof reasonably satisfactory to Operator of their financial capability to conduct such operations or to take over the well
40 within the required period or thereafter to conduct operations on such well shall entitle operator to retain or take possession
41 of such well and plug and abandon the well.

42 Parties taking over a well as provided herein shall tender to each of the other parties its proportionate share of the value of
43 the well's salvable material and equipment, determined in accordance with the provisions of Exhibit "C," less the estimated cost
44 of salvaging and the estimated cost of plugging and abandoning and restoring the surface; provided, however, that in the event
45 the estimated plugging and abandoning and surface restoration costs and the estimated cost of salvaging are higher than the
46 value of the well's salvable material and equipment, each of the abandoning parties shall tender to the parties continuing
47 operations their proportionate shares of the estimated excess cost. Each abandoning party shall assign to the non-abandoning
48 parties, without warranty, express or implied, as to title or as to quantity, or fitness for use of the equipment and material, all
49 of its interest in the wellbore of the well and related equipment, together with its interest in the Leaschold insofar and only
50 insofar as such Leaschold covers the right to obtain production from that wellbore in the Zone then open to production. If the
51 interest of the abandoning party is or includes an Oil and Gas Interest, such party shall execute and deliver to the non-
52 abandoning party or parties an oil and gas lease, limited to the wellbore and the Zone then open to production, for a term of
53 one (1) year and so long thereafter as Oil and/or Gas is produced from the Zone covered thereby, such lease to be on the form
54 attached as Exhibit "B." The assignments or leases so limited shall encompass the Drilling Unit upon which the well is located.
55 The payments by, and the assignments or leases to, the assignees shall be in a ratio based upon the relationship of their
56 respective percentage of participation in the Contract Area to the aggregate of the percentages of participation in the Contract
57 Area of all assignees. There shall be no readjustment of interests in the remaining portions of the Contract Area.

58 Thereafter, abandoning parties shall have no further responsibility, liability, or interest in the operation of or production
59 from the well in the Zone then open other than the royalties retained in any lease made under the terms of this Article. Upon
60 request, Operator shall continue to operate the assigned well for the account of the non-abandoning parties at the rates and
61 charges contemplated by this agreement, plus any additional cost and charges which may arise as the result of the separate
62 ownership of the assigned well. Upon proposed abandonment of the producing Zone assigned or leased, the assignor or lessor
63 shall then have the option to repurchase its prior interest in the well (using the same valuation formula) and participate in
64 further operations therein subject to the provisions hereof.

65 3. Abandonment of Non-Consent Operations: The provisions of Article VI.E.1. or VI.E.2. above shall be applicable as
66 between Consenting Parties in the event of the proposed abandonment of any well excepted from said Articles; provided,
67 however, no well shall be permanently plugged and abandoned unless and until all parties having the right to conduct further
68 operations therein have been notified of the proposed abandonment and afforded the opportunity to elect to take over the well
69 in accordance with the provisions of this Article VI.E.; and provided further, that Non-Consenting Parties who own an interest
70 in a portion of the well shall pay their proportionate shares of abandonment and surface restoration cost for such well as
71 provided in Article VI.B.2.(b).

72 **F. Termination of Operations:**

73 Upon the commencement of an operation for the drilling, Reworking, Sidetracking, Plugging Back, Deepening, testing,
74

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1 Completion or plugging of a well, including but not limited to the Initial Well, such operation shall not be terminated without
2 consent of parties bearing 80% of the costs of such operation; provided, however, that in the event granite or other
3 practically impenetrable substance or condition in the hole is encountered which renders further operations impractical,
4 Operator may discontinue operations and give notice of such condition in the manner provided in Article VI.B.1, and the
5 provisions of Article VI.B. or VI.E. shall thereafter apply to such operation, as appropriate.

6 **G. Taking Production in Kind:**

7 **Option No. 1: Gas Balancing Agreement Attached**

8 Gas Each party, other than an uncased mineral owner, shall take in kind or separately dispose of its proportionate share of all Oil and
9 produced from the

10 Contract Area, exclusive of production which may be used in development and producing operations and in preparing and
11 treating Oil and Gas for marketing purposes and production unavoidably lost. Any extra expenditure incurred in the taking
12 in kind or separate disposition by any party of its proportionate share of the production shall be borne by such party. Any
13 party taking its share of production in kind shall be required to pay for only its proportionate share of such part of
14 Operator's surface facilities which it uses.

15 Each party shall execute such division orders and contracts as may be necessary for the sale of its interest in
16 production from the Contract Area, and, except as provided in Article VII.B., shall be entitled to receive payment directly from the
17 purchaser thereof for its share of all production.

18 If any party fails to make the arrangements necessary to take in kind or separately dispose of its proportionate
19 share of the Oil produced from the Contract Area, Operator shall have the right, subject to the revocation at will by
20 the party owning it, but not the obligation, to purchase such Oil or sell it to others at any time and from time to
21 time, for the account of the non-taking party. Any such purchase or sale by Operator may be terminated by
22 Operator upon at least ten (10) days written notice to the owner of said production and shall be subject always to
23 the right of the owner of the production upon at least ten (10) days written notice to Operator to exercise at any
24 time its right to take in kind, or separately dispose of, its share of all Oil not previously delivered to a purchaser.
25 Any purchase or sale by Operator of any other party's share of Oil shall be only for such reasonable periods of time
26 as are consistent with the minimum needs of the industry under the particular circumstances, but in no event for a
27 period in excess of one (1) year.

28 Any such sale by Operator shall be in a manner commercially reasonable under the circumstances but Operator
29 shall have no duty to share any existing market or to obtain a price equal to that received under any existing
30 market. The sale or delivery by Operator of a non-taking party's share of Oil under the terms of any existing
31 contract of Operator shall not give the non-taking party any interest in or make the non-taking party a party to said
32 contract. No purchase shall be made by Operator without first giving the non-taking party at least ten (10) days
33 written notice of such intended purchase and the price to be paid or the pricing basis to be used.

34 All parties shall give timely written notice to Operator of their Gas marketing arrangements for the following
35 month, excluding price, and shall notify Operator immediately in the event of a change in such arrangements.
36 Operator shall maintain records of all marketing arrangements, and of volumes actually sold or transported, which
37 records shall be made available to Non-Operators upon reasonable request.

38 In the event one or more parties' separate disposition of its share of the Gas causes split-stream deliveries to separate
39 pipelines and/or deliveries which on a day-to-day basis for any reason are not exactly equal to a party's respective proportion-
40 ate share of total Gas sales to be allocated to it, the balancing or accounting between the parties shall be in accordance with
41 any Gas balancing agreement between the parties hereto, whether such an agreement is attached as Exhibit "E" or is a
42 separate agreement. Operator shall give notice to all parties of the first sales of Gas from any well under this agreement.

43 **Option No. 2: No Gas Balancing Agreement:**

44 ~~Each party shall take in kind or separately dispose of its proportionate share of all Oil and Gas produced from~~
45 ~~the Contract Area, exclusive of production which may be used in development and producing operations and in~~
46 ~~preparing and treating Oil and Gas for marketing purposes and production unavoidably lost. Any extra expenditures~~
47 ~~incurred in the taking in kind or separate disposition by any party of its proportionate share of the production shall~~
48 ~~be borne by such party. Any party taking its share of production in kind shall be required to pay for only its~~
49 ~~proportionate share of such part of Operator's surface facilities which it uses.~~

50 ~~Each party shall execute such division orders and contracts as may be necessary for the sale of its interest in~~
51 ~~production from the Contract Area, and, except as provided in Article VII.B., shall be entitled to receive payment~~
52 ~~directly from the purchaser thereof for its share of all production.~~

53 ~~If any party fails to make the arrangements necessary to take in kind or separately dispose of its proportionate~~
54 ~~share of the Oil and/or Gas produced from the Contract Area, Operator shall have the right, subject to the~~
55 ~~revocation at will by the party owning it, but not the obligation, to purchase such Oil and/or Gas or sell it to others~~
56 ~~at any time and from time to time, for the account of the non-taking party. Any such purchase or sale by Operator~~
57 ~~may be terminated by Operator upon at least ten (10) days written notice to the owner of said production and shall~~
58 ~~be subject always to the right of the owner of the production upon at least ten (10) days written notice to Operator~~
59 ~~to exercise its right to take in kind, or separately dispose of, its share of all Oil and/or Gas not previously delivered~~
60 ~~to a purchaser; provided, however, that the effective date of any such revocation may be deferred at Operator's~~
61 ~~election for a period not to exceed ninety (90) days if Operator has committed such production to a purchase~~
62 ~~contract having a term extending beyond such ten (10) day period. Any purchase or sale by Operator of any other~~
63 ~~party's share of Oil and/or Gas shall be only for such reasonable periods of time as are consistent with the~~
64 ~~minimum needs of the industry under the particular circumstances, but in no event for a period in excess of one (1)~~
65 ~~year.~~

66 ~~Any such sale by Operator shall be in a manner commercially reasonable under the circumstances, but Operator~~
67 ~~shall have no duty to share any existing market or transportation arrangement or to obtain a price or transportation~~
68 ~~fee equal to that received under any existing market or transportation arrangement. The sale or delivery by~~
69 ~~Operator of a non-taking party's share of production under the terms of any existing contract of Operator shall not~~
70 ~~give the non-taking party any interest in or make the non-taking party a party to said contract. No purchase of Oil~~
71 ~~and Gas and no sale of Gas shall be made by Operator without first giving the non-taking party ten days written~~
72 ~~notice of such intended purchase or sale and the price to be paid or the pricing basis to be used. Operator shall give~~
73 ~~notice to all parties of the first sale of Gas from any well under this Agreement.~~

74 ~~All parties shall give timely written notice to Operator of their Gas marketing arrangements for the following~~

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1 ~~month, excluding price, and shall notify Operator immediately in the event of a change in such arrangements.~~
2 ~~Operator shall maintain records of all marketing arrangements, and of volumes actually sold or transported, which~~
3 ~~records shall be made available to Non-Operators upon reasonable request.~~

4 **ARTICLE VII.**

5 **EXPENDITURES AND LIABILITY OF PARTIES**

6 **A. Liability of Parties:**

7 The liability of the parties shall be several, not joint or collective. Each party shall be responsible only for its obligations,
8 and shall be liable only for its proportionate share of the costs of developing and operating the Contract Area. Accordingly, the
9 liens granted among the parties in Article VII.B. are given to secure only the debts of each severally, and no party shall have
10 any liability to third parties hereunder to satisfy the default of any other party in the payment of any expense or obligation
11 hereunder. It is not the intention of the parties to create, nor shall this agreement be construed as creating, a mining or other
12 partnership, joint venture, agency relationship or association, or to render the parties liable as partners, co-venturers, or
13 principals. In their relations with each other under this agreement, the parties shall not be considered fiduciaries or to have
14 established a confidential relationship but rather shall be free to act on an arm's-length basis in accordance with their own
15 respective self-interest, subject, however, to the obligation of the parties to act in good faith in their dealings with each other
16 with respect to activities hereunder.

17 **B. Liens and Security Interests:**

18 Each party, other than an unleased mineral owner, grants to the other parties hereto a lien upon any interest it now owns or hereafter
19 acquires in Oil and Gas
20 Leases and Oil and Gas Interests in the Contract Area, and a security interest and/or purchase money security interest in any
21 interest it now owns or hereafter acquires in the personal property and fixtures on or used or obtained for use in connection
22 therewith, to secure performance of all of its obligations under this agreement including but not limited to payment of expense,
23 interest and fees, the proper disbursement of all monies paid hereunder, the assignment or relinquishment of interest in Oil
24 and Gas Leases as required hereunder, and the proper performance of operations hereunder. Such lien and security interest
25 granted by each party hereto shall include such party's leasehold interests, working interests, operating rights, and royalty and
26 overriding royalty interests in the Contract Area now owned or hereafter acquired and in lands pooled or unitized therewith or
27 otherwise becoming subject to this agreement, the Oil and Gas when extracted therefrom and equipment situated thereon or
28 used or obtained for use in connection therewith (including, without limitation, all wells, tools, and tubular goods), and accounts
29 (including, without limitation, accounts arising from gas imbalances or from the sale of Oil and/or Gas at the wellhead),
30 contract rights, inventory and general intangibles relating thereto or arising therefrom, and all proceeds and products of the
31 foregoing.

32 To perfect the lien and security agreement provided herein, each party hereto shall execute and acknowledge the recording
33 supplement and/or any financing statement prepared and submitted by any party hereto in conjunction herewith or at any time
34 following execution hereof, and Operator is authorized to file this agreement or the recording supplement executed herewith as
35 a lien or mortgage in the applicable real estate records and as a financing statement with the proper officer under the Uniform
36 Commercial Code in the state in which the Contract Area is situated and such other states as Operator shall deem appropriate
37 to perfect the security interest granted hereunder. Any party may file this agreement, the recording supplement executed
38 herewith, or such other documents as it deems necessary as a lien or mortgage in the applicable real estate records and/or a
39 financing statement with the proper officer under the Uniform Commercial Code.

40 Each party represents and warrants to the other parties hereto that the lien and security interest granted by such party to
41 the other parties shall be a first and prior lien, and each party hereby agrees to maintain the priority of said lien and security
42 interest against all persons acquiring an interest in Oil and Gas Leases and Interests covered by this agreement by, through or
43 under such party. All parties acquiring an interest in Oil and Gas Leases and Oil and Gas Interests covered by this agreement,
44 whether by assignment, merger, mortgage, operation of law, or otherwise, shall be deemed to have taken subject
45 to the lien and security interest granted by this Article VII.B. as to all obligations attributable to such interest hereunder
46 whether or not such obligations arise before or after such interest is acquired.

47 To the extent that parties have a security interest under the Uniform Commercial Code of the state in which the
48 Contract Area is situated, they shall be entitled to exercise the rights and remedies of a secured party under the Code.
49 The bringing of a suit and the obtaining of judgment by a party for the secured indebtedness shall not be deemed an
50 election of remedies or otherwise affect the lien rights or security interest as security for the payment thereof. In
51 addition, upon default by any party in the payment of its share of expenses, interests or fees, or upon the improper use
52 of funds by the Operator, the other parties shall have the right, without prejudice to other rights or remedies, to collect
53 from the purchaser the proceeds from the sale of such defaulting party's share of Oil and Gas until the amount owed by
54 such party, plus interest as provided in "Exhibit C," has been received, and shall have the right to offset the amount
55 owed against the proceeds from the sale of such defaulting party's share of Oil and Gas. All purchasers of production
56 may rely on a notification of default from the non-defaulting party or parties stating the amount due as a result of the
57 default, and all parties waive any recourse available against purchasers for releasing production proceeds as provided in
58 this paragraph.

59 If any party fails to pay its share of cost within one hundred twenty (120) days after rendition of a statement therefor by
60 Operator, the non-defaulting parties, including Operator, shall upon request by Operator, pay the unpaid amount in the
61 proportion that the interest of each such party bears to the interest of all such parties. The amount paid by each party so
62 paying its share of the unpaid amount shall be secured by the liens and security rights described in Article VII.B., and each
63 paying party may independently pursue any remedy available hereunder or otherwise.

64 If any party does not perform all of its obligations hereunder, and the failure to perform subjects such party to foreclosure
65 or execution proceedings pursuant to the provisions of this agreement, to the extent allowed by governing law, the defaulting
66 party waives any available right of redemption from and after the date of judgment, any required valuation or appraisalment
67 of the mortgaged or secured property prior to sale, any available right / to stay execution or to require a marshaling of assets
68 or sale in inverse order of alienation / and any required bond in the event a receiver is appointed. In addition, to the extent permitted by applicable law, each party
69 hereby grants to the other parties a power of sale as to any property that is subject to the lien and security rights granted
70 hereunder, such power to be exercised in the manner provided by applicable law or otherwise in a commercially reasonable
71 manner and upon reasonable notice.

72 Each party agrees that the other parties shall be entitled to utilize the provisions of Oil and Gas lien law or other lien
73 law of any state in which the Contract Area is situated to enforce the obligations of each party hereunder. Without limiting
74 the generality of the foregoing, to the extent permitted by applicable law, Non-Operators agree that Operator may invoke or

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1 utilize the mechanics' or materialmen's lien law of the state in which the Contract Area is situated in order to secure the
2 payment to Operator of any sum due hereunder for services performed or materials supplied by Operator.

3 **C. Advances:**

4 Operator, at its election, shall have the right from time to time to demand and receive from one or more of the other
5 Parties, other than unleased mineral owners, payment in advance of their respective shares of the estimated amount of the expense to be
6 incurred in the operations
7 hereunder during the next succeeding month, which right may be exercised only by submission to each such party of an
8 itemized statement of such estimated expense, together with an invoice for its share thereof. Each such statement and invoice
9 for the payment in advance of estimated expense shall be submitted on or before the 20th day of the next preceding month.
10 Each party shall pay to Operator its proportionate share of such estimate within ~~fifteen (15)~~ ^{thirty (30)} after such estimate and
11 invoice is received. If any party fails to pay its share of said estimate within said time, the amount due shall bear interest as
12 provided in Exhibit "C" until paid. Proper adjustment shall be made monthly between advances and actual expense to the end
13 that each party shall bear and pay its proportionate share of actual expenses incurred, and no more.

14 **D. Defaults and Remedies:**

15 If any party fails to discharge any financial obligation under this agreement, including without limitation the failure to
16 make any advance under the preceding Article VII.C. or any other provision of this agreement, within the period required for
17 such payment hereunder, then in addition to the remedies provided in Article VII.B. or elsewhere in this agreement, the
18 remedies specified below shall be applicable. For purposes of this Article VII.D., all notices and elections shall be delivered
19 only by Operator, except that Operator shall deliver any such notice and election requested by a non-defaulting Non-Operator,
20 and when Operator is the party in default, the applicable notices and elections can be delivered by any Non-Operator.
21 Election of any one or more of the following remedies shall not preclude the subsequent use of any other remedy specified
22 below or otherwise available to a non-defaulting party.

23 1. Suspension of Rights: Any party may deliver to the party in default a Notice of Default, which shall specify the default,
24 specify the action to be taken to cure the default, and specify that failure to take such action will result in the exercise of one
25 or more of the remedies provided in this Article. If the default is not cured within thirty (30) days of the delivery of such
26 Notice of Default, all of the rights of the defaulting party granted by this agreement may upon notice be suspended until the
27 default is cured, without prejudice to the right of the non-defaulting party or parties to continue to enforce the obligations of
28 the defaulting party previously accrued or thereafter accruing under this agreement. If Operator is the party in default, the
29 Non-Operators shall have in addition the right, by vote of Non-Operators owning a majority in interest in the Contract Area
30 after excluding the voting interest of Operator, to appoint a new Operator effective immediately. The rights of a defaulting
31 party that may be suspended hereunder at the election of the non-defaulting parties shall include, without limitation, the right
32 to receive information as to any operation conducted hereunder during the period of such default, the right to elect to
33 participate in an operation proposed under Article VI.B. of this agreement, the right to participate in an operation being
34 conducted under this agreement even if the party has previously elected to participate in such operation, and the right to
35 receive proceeds of production from any well subject to this agreement.

36 2. Suit for Damages: Non-defaulting parties or Operator for the benefit of non-defaulting parties may sue (at joint
37 account expense) to collect the amounts in default, plus interest accruing on the amounts recovered from the date of default
38 until the date of collection at the rate specified in Exhibit "C" attached hereto. Nothing herein shall prevent any party from
39 suing any defaulting party to collect consequential damages accruing to such party as a result of the default.

40 3. Deemed Non-Consent: The non-defaulting party may deliver a written Notice of Non-Consent Election to the
41 defaulting party at any time after the expiration of the thirty-day cure period following delivery of the Notice of Default, in
42 which event if the billing is for the drilling a new well or the Plugging Back, Sidetracking, Reworking or Deepening of a
43 well which is to be or has been plugged as a dry hole, or for the Completion or Recompletion of any well, the defaulting
44 party will be conclusively deemed to have elected not to participate in the operation and to be a Non-Consenting Party with
45 respect thereto under Article VI.B. or VI.C., as the case may be, to the extent of the costs unpaid by such party,
46 notwithstanding any election to participate theretofore made. If election is made to proceed under this provision, then the
47 non-defaulting parties may not elect to sue for the unpaid amount pursuant to Article VII.D.2.

48 Until the delivery of such Notice of Non-Consent Election to the defaulting party, such party shall have the right to cure
49 its default by paying its unpaid share of costs plus interest at the rate set forth in Exhibit "C." provided, however, such
50 payment shall not prejudice the rights of the non-defaulting parties to pursue remedies for damages incurred by the non-
51 defaulting parties as a result of the default. Any interest relinquished pursuant to this Article VII.D.3. shall be offered to the
52 non-defaulting parties in proportion to their interests, and the non-defaulting parties electing to participate in the ownership
53 of such interest shall be required to contribute their shares of the defaulted amount upon their election to participate therein.

54 4. Advance Payment: If a default is not cured within thirty (30) days of the delivery of a Notice of Default, Operator, or
55 Non-Operators if Operator is the defaulting party, may thereafter require advance payment from the defaulting
56 party of such defaulting party's anticipated share of any item of expense for which Operator, or Non-Operators, as the case may
57 be, would be entitled to reimbursement under any provision of this agreement, whether or not such expense was the subject of
58 the previous default. Such right includes, but is not limited to, the right to require advance payment for the estimated costs of
59 drilling a well or Completion of a well as to which an election to participate in drilling or Completion has been made. If the
60 defaulting party fails to pay the required advance payment, the non-defaulting parties may pursue any of the remedies provided
61 in the Article VII.D. or any other default remedy provided elsewhere in this agreement. Any excess of funds advanced remaining
62 when the operation is completed and all costs have been paid shall be promptly returned to the advancing party.

63 ~~5. Costs and Attorneys' Fees: In the event any party is required to bring legal proceedings to enforce any financial
64 obligation of a party hereunder, the prevailing party in such action shall be entitled to recover all court costs, costs of
65 collection, and a reasonable attorney's fee, which the lien provided for herein shall also secure.~~

66 **E. Rentals, Shut-in Well Payments and Minimum Royalties:**

67 Rentals, shut-in well payments and minimum royalties which may be required under the terms of any lease shall be paid
68 by the party or parties who subjected such lease to this agreement at its or their expense. In the event two or more parties
69 own and have contributed interests in the same lease to this agreement, such parties may designate one of such parties to
70 make said payments for and on behalf of all such parties. Any party may request, and shall be entitled to receive, proper
71 evidence of all such payments. In the event of failure to make proper payment of any rental, shut-in well payment or
72 minimum royalty through mistake or oversight where such payment is required to continue the lease in force, any loss which
73 results from such non-payment shall be borne in accordance with the provisions of Article IV.B.2.

74 Operator shall notify Non-Operators of the anticipated completion of a shut-in well, or the shutting in or return to

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1 production of a producing well, at least five (5) days (excluding Saturday, Sunday, and legal holidays) prior to taking such
2 action, or at the earliest opportunity permitted by circumstances, but assumes no liability for failure to do so. In the event of
3 failure by Operator to so notify Non-Operators, the loss of any lease contributed hereto by Non-Operators for failure to make
4 timely payments of any shut-in well payment shall be borne jointly by the parties hereto under the provisions of Article
5 IV.B.3.

6 **F. Taxes:**

7 Beginning with the first calendar year after the effective date hereof, Operator shall render for ad valorem taxation all
8 property subject to this agreement which by law should be rendered for such taxes and assessments, and it shall pay all such taxes assessed
9 thereon before they become delinquent. Prior to the rendition date, each Non-Operator shall furnish Operator information as
10 to burdens (to include, but not be limited to, royalties, overriding royalties and production payments) on Leases and Oil and
11 Gas Interests contributed by such Non-Operator. If the assessed valuation of any Lease is reduced by reason of its being
12 subject to outstanding excess royalties, overriding royalties or production payments, the reduction in ad valorem taxes
13 resulting therefrom shall inure to the benefit of the owner or owners of such Lease, and Operator shall adjust the charge to
14 such owner or owners so as to reflect the benefit of such reduction. If the ad valorem taxes are based in whole or in part
15 upon separate valuations of each party's working interest, then notwithstanding anything to the contrary herein, charges to
16 the joint account shall be made and paid by the parties hereto in accordance with the tax value generated by each party's
17 working interest. Operator shall bill the other parties for their proportionate shares of all tax payments in the manner
18 provided in Exhibit "C."

19 If Operator considers any tax assessment improper, Operator may, at its discretion, protest within the time and manner
20 prescribed by law, and prosecute the protest to a final determination, unless all parties agree to abandon the protest prior to final
21 determination. During the pendency of administrative or judicial proceedings, Operator may elect to pay, under protest, all such taxes
22 and any interest and penalty. When any such protested assessment shall have been finally determined, Operator shall pay the tax for
23 the joint account, together with any interest and penalty accrued, and the total cost shall then be assessed against the parties, and be
24 paid by them, as provided in Exhibit "C."

25 Each party shall pay or cause to be paid all production, severance, excise, gathering and other taxes and assessments imposed upon or
26 with respect
27 to the production or handling of such party's share of Oil and Gas produced under the terms of this agreement.

28 **ARTICLE VIII.**

29 **ACQUISITION, MAINTENANCE OR TRANSFER OF INTEREST**

30 **A. Surrender of Leases:**

31 The Leases covered by this agreement, insofar as they embrace acreage in the Contract Area, shall not be surrendered in whole
32 or in part unless all parties consent thereto; however, no consent shall be necessary to release a lease which has expired or otherwise
33 terminated in accordance with its terms.

34 ~~However, should~~ / any party, other than an unleased mineral owner, desire to surrender its interest in any Lease or in any portion
35 thereof, ~~such~~ party shall ~~give~~ written
36 notice of the proposed surrender to all parties, and the parties to whom such notice is delivered shall have thirty (30) days after
37 delivery of the notice within which to notify the party proposing the surrender whether they elect to consent thereto. Failure of a
38 party to whom such notice is delivered to reply within said 30-day period shall constitute a consent to the surrender of the Leases
39 described in the notice. If all parties do not agree or consent thereto, the party desiring to surrender shall assign, without express or
40 implied warranty of title, all of its interest in such Lease, or portion thereof, and any well, material and equipment which may be
41 located thereon and any rights in production thereafter secured, to the parties not consenting to such surrender. If the interest of the
42 assigning party is or includes an Oil and Gas Interest, the assigning party shall execute and deliver to the party or parties not
43 consenting to such surrender an oil and gas lease covering such Oil and Gas Interest for a term of one (1) year and so long
44 thereafter as Oil and/or Gas is produced from the land covered thereby, such lease to be on the form attached hereto as Exhibit "B."
45 Upon such assignment or lease, the assigning party shall be relieved from all obligations thereafter accruing, but not theretofore
46 accrued, with respect to the interest assigned or leased and the operation of any well attributable thereto, and the assigning party
47 shall have no further interest in the assigned or leased premises and its equipment and production other than the royalties retained
48 in any lease made under the terms of this Article. The party assignee or lessee shall pay to the party assignor or lessor the
49 reasonable salvage value of the latter's interest in any well's salvable materials and equipment attributable to the assigned or leased
50 acreage. The value of all salvable materials and equipment shall be determined in accordance with the provisions of Exhibit "C," less
51 the estimated cost of salvaging and the estimated cost of plugging and abandoning and restoring the surface. If such value is less
52 than such costs, then the party assignor or lessor shall pay to the party assignee or lessee the amount of such deficit. If the
53 assignment or lease is in favor of more than one party, the interest shall be shared by such parties in the proportions that the
54 interest of each bears to the total interest of all such parties. If the interest of the parties to whom the assignment is to be made
55 varies according to depth, then the interest assigned shall similarly reflect such variances.

56 Any assignment, lease or surrender made under this provision shall ~~not reduce or change~~ the assignor's, lessor's or surrendering
57 party's interest ~~as it was immediately before the assignment, lease or surrender~~ ^{pursuant to Article XVI.M} in the balance of the Contract Area; and the acreage
58 assigned, leased or surrendered, and subsequent operations thereon, shall ~~not thereafter~~ be subject to the terms and provisions of this
59 agreement ~~but shall be deemed subject to an Operating Agreement in the form of this agreement.~~

60 **B. Renewal or Extension of Leases:**

61 If any party, other than an unleased mineral owner, secures a renewal or replacement of an Oil and Gas Lease or Interest subject to this
62 agreement, ~~then~~ ^{all} other
63 parties shall be notified promptly upon such acquisition or, in the case of a replacement Lease taken before expiration of an existing Lease,
64 promptly upon expiration of the existing Lease. The parties notified shall have the right for a period of thirty (30) days following
65 delivery of such notice in which to elect to participate in the ownership of the renewal or replacement Lease, insofar as such Lease
66 affects lands within the Contract Area, by paying to the party who acquired it their proportionate shares of the acquisition cost
67 allocated to that part of such Lease within the Contract Area, which shall be in proportion to the interest held at that time by the
68 parties in the Contract Area. Each party who participates in the purchase of a renewal or replacement Lease shall be given an
69 assignment of its proportionate interest therein by the acquiring party, ~~without warranty of title, except as to acts by, through or under the acquiring party.~~

70 If some, but less than all, of the parties elect to participate in the purchase of a renewal or replacement Lease, it shall be owned
71 by the parties who elect to participate therein, in a ratio based upon the relationship of their respective percentage of participation in
72 the Contract Area to the aggregate of the percentages of participation in the Contract Area of all parties participating in the
73 purchase of such renewal or replacement Lease. The acquisition of a renewal or replacement Lease by any or all of the parties hereto
74 shall ~~not cause a readjustment of the interests of the parties stated in Exhibit "A" / but~~ ^{pursuant to Article XVII.L} and any renewal or replacement Lease in which
75 less than all parties elect to participate shall ~~not be subject to this agreement but shall be deemed subject to a separate Operating~~
76 ~~Agreement in the form of this agreement.~~

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1 If the interests of the parties in the Contract Area vary according to depth, then their right to participate proportionately in
2 renewal or replacement Leases and their right to receive an assignment of interest shall also reflect such depth variances.

3 The provisions of this Article shall apply to renewal or replacement Leases whether they are for the entire interest covered by
4 the expiring Lease or cover only a portion of its area or an interest therein. Any renewal or replacement Lease taken before the
5 expiration of its predecessor Lease, or taken or contracted for or becoming effective within six (6) months after the expiration of the
6 existing Lease, shall be subject to this provision so long as this agreement is in effect at the time of such acquisition or at the time
7 the renewal or replacement Lease becomes effective; but any Lease taken or contracted for more than six (6) months after the
8 expiration of an existing Lease shall not be deemed a renewal or replacement Lease and shall not be subject to the provisions of this
9 agreement.

10 The provisions in this Article shall ^{not} also be applicable to extensions of Oil and Gas Leases.

11
12 **C. Acreage or Cash Contributions:**

13 While this agreement is in force, if any party contracts for a contribution of cash towards the drilling of a well or any other
14 operation on the Contract Area, such contribution shall be paid to the party who conducted the drilling or other operation and shall
15 be applied by it against the cost of such drilling or other operation. If the contribution be in the form of acreage, the party to whom
16 the contribution is made shall promptly tender an assignment of the acreage, without warranty of title, to the Drilling Parties in the
17 proportions said Drilling Parties shared the cost of drilling the well. Such acreage shall become a separate Contract Area and, to the
18 extent possible, be governed by provisions identical to this agreement. Each party shall promptly notify all other parties of any
19 acreage or cash contributions it may obtain in support of any well or any other operation on the Contract Area. The above
20 provisions shall also be applicable to optional rights to earn acreage outside the Contract Area which are in support of well drilled
21 inside Contract Area.

22 If any party contracts for any consideration relating to disposition of such party's share of substances produced hereunder,
23 such consideration shall not be deemed a contribution as contemplated in this Article VIII.C.

24 **D. Assignment; Maintenance of Uniform Interest:**

25 ~~For the purpose of maintaining uniformity of ownership in the Contract Area in the Oil and Gas Leases, Oil and Gas~~
26 ~~Interests, wells, equipment and production covered by this agreement no party shall sell, encumber, transfer or make other~~
27 ~~disposition of its interest in the Oil and Gas Leases and Oil and Gas Interests embraced within the Contract Area or in wells,~~
28 ~~equipment and production unless such disposition covers either:~~

- 29 ~~1. the entire interest of the party in all Oil and Gas Leases, Oil and Gas Interests, wells, equipment and production; or~~
30 ~~2. an equal undivided percent of the party's present interest in all Oil and Gas Leases, Oil and Gas Interests, wells,~~
31 ~~equipment and production in the Contract Area.~~

32 be Any sale, encumbrance, transfer or other disposition made by any party affecting any of that party's interest in the contract area shall
33 be made expressly subject to this agreement

34 and shall be made without prejudice to the right of the other parties, and any transferee of an ownership interest in any Oil and
35 Gas Lease or Interest shall be deemed a party to this agreement as to the interest conveyed from and after the effective date of
36 the transfer of ownership; provided, however, that the other parties shall not be required to recognize any such sale,
37 encumbrance, transfer or other disposition for any purpose hereunder until thirty (30) days after they have received a copy of the
38 instrument of transfer or other satisfactory evidence thereof in writing from the transferor or transferee. No assignment or other
39 disposition of interest by a party shall relieve such party of obligations previously incurred by such party hereunder with respect
40 to the interest transferred, including without limitation the obligation of a party to pay all costs attributable to an operation
41 conducted hereunder in which such party has agreed to participate prior to making such assignment, and the lien and security
42 interest granted by Article VII.B. shall continue to burden the interest transferred to secure payment of any such obligations.

43 If, at any time the interest of any party is divided among and owned by four or more co-owners, Operator, at its discretion,
44 may require such co-owners to appoint a single trustee or agent with full authority to receive notices, approve expenditures,
45 receive billings for and approve and pay such party's share of the joint expenses, and to deal generally with, and with power to
46 bind, the co-owners of such party's interest within the scope of the operations embraced in this agreement; however, all such co-
47 owners shall have the right to enter into and execute all contracts or agreements for the disposition of their respective shares of
48 the Oil and Gas produced from the Contract Area and they shall have the right to receive, separately, payment of the sale
49 proceeds thereof.

50 **E. Waiver of Rights to Partition:**

51 If permitted by the laws of the state or states in which the property covered hereby is located, each party hereto owning a
52 undivided interest in the Contract Area waives any and all rights it may have to partition and have set aside to it in severalty its
53 undivided interest therein.

54 **F. Preferential Right to Purchase**

55 (Optional: Check if applicable)

56 ~~Should any party desire to sell all or any part of its interests under this agreement, or its rights and interests in the Contract~~
57 ~~Area, it shall promptly give written notice to the other parties, with full information concerning its proposed disposition, which~~
58 ~~shall include the name and address of the prospective transferee (who must be ready, willing and able to purchase), the purchase~~
59 ~~price, a legal description sufficient to identify the property, and all other terms of the offer. The other parties shall then have an~~
60 ~~optional prior right, for a period of ten (10) days after notice is delivered, to purchase for the stated consideration on the~~
61 ~~same terms and conditions the interest which the other party proposes to sell; and, if this optional right is exercised, the~~
62 ~~purchasing parties shall share the purchased interest in the proportions that the interest of each bears to the total interest of all~~
63 ~~purchasing parties. However, there shall be no preferential right to purchase in those cases where any party wishes to mortgage~~
64 ~~its interests, or to transfer title to its interest to its mortgagee in lieu of or pursuant to foreclosure of a mortgage of its interests,~~
65 ~~or to dispose of its interests by merger, reorganization, consolidation, or by sale of all or substantially all of its Oil and Gas assets~~
66 ~~to any party, or by transfer of its interests to a subsidiary or parent company or to a subsidiary of a parent company, or to any~~
67 ~~company in which such party owns a majority of the stock.~~

68 **ARTICLE IX.**

69 **INTERNAL REVENUE CODE ELECTION**

70 If, for federal income tax purposes, this agreement and the operations hereunder are regarded as a partnership, and if the
71 parties have not otherwise agreed to form a tax partnership pursuant to Exhibit "G" or other agreement between them, each
72 party thereby affected elects to be excluded from the application of all of the provisions of Subchapter "K," Chapter 1, Subtitle
73 "A," of the Internal Revenue Code of 1986, as amended ("Code"), as permitted and authorized by Section 761 of the Code and
74 the regulations promulgated thereunder. Operator is authorized and directed to execute on behalf of each party hereby affected

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1 such evidence of this election as may be required by the Secretary of the Treasury of the United States or the Federal Internal
2 Revenue Service, including specifically, but not by way of limitation, all of the returns, statements, and the data required by
3 Treasury Regulation §1.761. Should there be any requirement that each party hereby affected give further evidence of this
4 election, each such party shall execute such documents and furnish such other evidence as may be required by the Federal Internal
5 Revenue Service or as may be necessary to evidence this election. No such party shall give any notices or take any other action
6 inconsistent with the election made hereby. If any present or future income tax laws of the state or states in which the Contract
7 Area is located or any future income tax laws of the United States contain provisions similar to those in Subchapter "K," Chapter
8 1. Subtitle "A," of the Code, under which an election similar to that provided by Section 761 of the Code is permitted, each party
9 hereby affected shall make such election as may be permitted or required by such laws. In making the foregoing election, each
10 such party states that the income derived by such party from operations hereunder can be adequately determined without the
11 computation of partnership taxable income.

12
13
14
15 **ARTICLE X.**
CLAIMS AND LAWSUITS

16 Operator may settle any single uninsured third party damage claim or suit arising from operations hereunder if the expenditure
17 does not exceed Fifty Thousand Dollars (~~\$50,000.00~~) and if the payment is in complete settlement
18 of such claim or suit. If the amount required for settlement exceeds the above amount, the parties hereto shall assume and take over
19 the further handling of the claim or suit, unless such authority is delegated to Operator. All costs and expenses of handling settling,
20 or otherwise discharging such claim or suit shall be a joint expense of the parties participating in the operation from which the
21 claim or suit arises. If a claim is made against any party or if any party is sued on account of any matter arising from operations
22 hereunder over which such individual has no control because of the rights given Operator by this agreement, such party shall
23 immediately notify all other parties, and the claim or suit shall be treated as any other claim or suit involving operations hereunder.

24
25
26 **ARTICLE XI.**
FORCE MAJEURE

27 If any party is rendered unable, wholly or in part, by force majeure to carry out its obligations under this agreement, other
28 than the obligation to indemnify or make money payments or furnish security, that party shall give to all other parties
29 prompt written notice of the force majeure with reasonably full particulars concerning it; thereupon, the obligations of the
30 party giving the notice, so far as they are affected by the force majeure, shall be suspended during, but no longer than, the
31 continuance of the force majeure. The term "force majeure," as here employed, shall mean an act of God, strike, lockout, or
32 other industrial disturbance, act of the public enemy, war, blockade, public riot, lightning, fire, storm, flood or other act of
33 nature, explosion, governmental action, governmental delay, restraint or inaction, unavailability of equipment, and any other
34 cause, whether of the kind specifically enumerated above or otherwise, which is not reasonably within the control of the party
35 claiming suspension.

36 The affected party shall use all reasonable diligence to remove the force majeure situation as quickly as practicable. The
37 requirement that any force majeure shall be remedied with all reasonable dispatch shall not require the settlement of strikes,
38 lockouts, or other labor difficulty by the party involved, contrary to its wishes; how all such difficulties shall be handled shall
39 be entirely within the discretion of the party concerned.

40
41 **ARTICLE XII.**
NOTICES

42 All notices authorized or required between the parties by any of the provisions of this agreement, unless otherwise
43 specifically provided, shall be in writing and delivered in person or by United States mail, courier service, / telegram, telex,
44 telecopier or any other form of facsimile, postage or charges prepaid, and addressed to such parties at the addresses listed on
45 Exhibit "A." All telephone or oral notices permitted by this agreement shall be confirmed immediately thereafter by written
46 notice. The originating notice given under any provision hereof shall be deemed delivered only when received by the party to
47 whom such notice is directed, and the time for such party to deliver any notice in response thereto shall run from the date
48 the originating notice is received. "Receipt" for purposes of this agreement with respect to written notice delivered hereunder
49 shall be actual delivery of the notice to the address of the party to be notified specified in accordance with this agreement, or
50 to the telecopy, facsimile / or telex machine of such party. The second or any responsive notice shall be deemed delivered when
51 deposited in the United States mail or at the office of the courier or telegraph service, or upon transmittal by telecopy, / telecopy
52 or facsimile, or when personally delivered to the party to be notified, provided, that when response is required within 24 or
53 48 hours, such response shall be given orally or by telephone, telex, / telecopy or other facsimile within such period. Each party
54 shall have the right to change its address at any time, and from time to time, by giving written notice thereof to all other
55 parties. If a party is not available to receive notice orally or by telephone when a party attempts to deliver a notice required
56 to be delivered within 24 or 48 hours, the notice may be delivered in writing by any other method specified herein and shall
57 be deemed delivered in the same manner provided above for any responsive notice.

58
59 **ARTICLE XIII.**
TERM OF AGREEMENT

60 This agreement shall remain in full force and effect as to the Oil and Gas Leases and/or Oil and Gas Interests subject
61 hereto for the period of time selected below; provided, however, no party hereto shall ever be construed as having any right, title
62 or interest in or to any Lease or Oil and Gas Interest contributed by any other party beyond the term of this agreement.

63 ~~Option No. 1: So long as any of the Oil and Gas Leases subject to this agreement remain or are continued in force as to any part~~
64 ~~of the Contract Area, whether by production, extension, renewal or otherwise~~

65 **Option No. 2:** In the event the well described in Article VI.A., or any subsequent well drilled under any provision
66 of this agreement, results in the Completion of a well as a well capable of production of Oil and/or Gas in paying
67 quantities, this agreement shall continue in force so long as any such well is capable of production, and for an
68 additional period of ninety (90) days thereafter; provided, however, if, prior to the expiration of such
69 additional period, one or more of the parties hereto are engaged in drilling, Reworking, Deepening, Sidetracking,
70 Plugging Back, testing or attempting to Complete or Re-complete a well or wells hereunder, this agreement shall
71 continue in force until such operations have been completed and if production results therefrom, this agreement
72 shall continue in force as provided herein. In the event the well described in Article VI.A., or any subsequent well
73 drilled hereunder, results in a dry hole, and no other well is capable of producing Oil and/or Gas from the
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1 Contract Area, this agreement shall terminate unless drilling, Deepening, Sidetracking, Completing, Re-
2 completing, Plugging Back or Reworking operations are commenced within ninety (90) days from the
3 date of abandonment of said well. "Abandonment" for such purposes shall mean either (i) a decision by all parties
4 not to conduct any further operations on the well or (ii) the clapse of 180 days from the conduct of any
5 operations on the well, whichever first occurs.

6 The termination of this agreement shall not relieve any party hereto from any expense, liability or other obligation or any
7 remedy therefor which has accrued or attached prior to the date of such termination.

8 Upon termination of this agreement and the satisfaction of all obligations hereunder, in the event a memorandum of this
9 Operating Agreement has been filed of record, Operator is authorized to file of record in all necessary recording offices a
10 notice of termination, and each party hereto agrees to execute such a notice of termination as to Operator's interest, upon
11 request of Operator, if Operator has satisfied all its financial obligations.

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ARTICLE XIV.
COMPLIANCE WITH LAWS AND REGULATIONS

15 A. Laws, Regulations and Orders:

16 This agreement shall be subject to the applicable laws of the state in which the Contract Area is located, to the valid rules,
17 regulations, and orders of any duly constituted regulatory body of said state; and to all other applicable federal, state,
18 and local laws, ordinances, rules, regulations and orders.

19 B. Governing Law:

20 This agreement and all matters pertaining hereto, including but not limited to matters of performance, non-
21 performance, breach, remedies, procedures, rights, duties, and interpretation or construction, shall be governed and
22 determined by the law of the state in which the Contract Area is located. ~~If the Contract Area is in two or more states,~~
23 ~~the law of the state of _____ shall govern.~~

24 C. Regulatory Agencies:

25 Nothing herein contained shall grant, or be construed to grant, Operator the right or authority to waive or release any
26 rights, privileges, or obligations which Non-Operators may have under federal or state laws or under rules, regulations or
27 orders promulgated under such laws in reference to oil, gas and mineral operations, including the location, operation, or
28 production of wells, on tracts offsetting or adjacent to the Contract Area.

29 With respect to the operations hereunder, Non-Operators agree to release Operator from any and all losses, damages,
30 injuries, claims and causes of action arising out of, incident to or resulting directly or indirectly from Operator's interpretation
31 or application of rules, rulings, regulations or orders of the Department of Energy or Federal Energy Regulatory Commission
32 or predecessor or successor agencies to the extent such interpretation or application was made in good faith and does not
33 constitute gross negligence. Each Non-Operator further agrees to reimburse Operator for such Non-Operator's share of
34 production or any refund, fine, levy or other governmental sanction that Operator may be required to pay as a result of such
35 an incorrect interpretation or application, together with interest and penalties thereon owing by Operator as a result of such
36 incorrect interpretation or application.

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ARTICLE XV.
MISCELLANEOUS

39 A. Execution:

40 This agreement shall be binding upon each Non-Operator, other than an unleased mineral owner, when this agreement or a counterpart
41 thereof ^{has} been executed by such Non-Operator and Operator notwithstanding that this agreement is not then or thereafter executed by all of
42 the parties to which it is tendered or which are listed on Exhibit "A" as owning an interest in the Contract Area or which
43 own, in fact, an interest in the Contract Area. Operator may, however, by written notice to all Non-Operators who have
44 become bound by this agreement as aforesaid, given at any time prior to the actual spud date of the Initial Well but in no
45 event later than five days prior to the date specified in Article VI.A. for commencement of the Initial Well, terminate this
46 agreement if Operator in its sole discretion determines that there is insufficient participation to justify commencement of
47 drilling operations. In the event of such a termination by Operator, all further obligations of the parties hereunder shall cease
48 as of such termination. In the event any Non-Operator has advanced or prepaid any share of drilling or other costs
49 hereunder, all sums so advanced shall be returned to such Non-Operator without interest. In the event Operator proceeds
50 with drilling operations for the Initial Well without the execution hereof by all persons listed on Exhibit "A" as having a
51 current working interest in such well, Operator shall indemnify Non-Operators with respect to all costs incurred for the
52 Initial Well which would have been charged to such person under this agreement if such person had executed the same and
53 Operator shall receive all revenues which would have been received by such person under this agreement if such person had
54 executed the same.

55 B. Successors and Assigns:

56 This agreement shall be binding upon and shall inure to the benefit of the parties hereto and their respective heirs,
57 devisees, legal representatives, successors and assigns, and the terms hereof shall be deemed to run with the Leases or
58 Interests included within the Contract Area.

59 C. Counterparts:

60 This instrument may be executed in any number of counterparts, each of which shall be considered an original for all
61 purposes.

62 D. Severability:

63 For the purposes of assuming or rejecting this agreement as an executory contract pursuant to federal bankruptcy laws,
64 this agreement shall not be severable, but rather must be assumed or rejected in its entirety, and the failure of any party to
65 this agreement to comply with all of its financial obligations provided herein shall be a material default.

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ARTICLE XVI.

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OTHER PROVISIONS

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A. Conflicts:

1 Notwithstanding anything herein contained to the contrary, it is understood and agreed that if there is any conflict between any
2 part of or all of the terms and provisions of Article XVI and any other terms and provisions of this agreement, the terms and
3 provisions of this Article XVI shall prevail and control.
4

5 **B. Priority of Operations:**

6 If at any time there is more than one operation proposed in connection with any well subject to this agreement and if the
7 Consenting Parties do not agree on the sequence of proposed operations, such proposed operations shall be conducted in the
8 following sequence:

- 9 First: testing, coring or logging;
10 Second: completion attempts without plugging back in ascending order from
11 deepest to shallowest depths;
12 Third: sidetracking in the order of least deviation from the original bottom hole location to the greatest deviation;
13 Fourth: deepening of a well below the authorized depth in descending order from shallowest to deepest depths;
14 Fifth: plugging back and completion attempts in ascending order from deepest to shallowest depths.
15

16 **C. Netting and Setoff:**

17 Except for any payments related to charges on any joint interest billing that a Non-Operator has disputed in good faith, in the
18 event that Non-Operator does not remit payment for any operating costs or charges assessable to Non-Operators and permitted
19 under this Operating Agreement within forty five (45) days after the date payment is due, Operator is authorized to deduct such
20 costs or charges, and to remit to such Non-Operators their respective net share of any proceeds attributable to the interest of such
21 Non-Operators being received directly from any purchasers of production from the Contract Area. The foregoing provisions shall
22 not diminish Operator's lien rights contained within this agreement.
23

24 **D. Multiple Billing:**

25 In no event shall Operator be required to make more than four billings for the entire interest credited to each Non-Operator on
26 Exhibit "A". If any Non-Operator to this agreement disposes of any part or all of the interest credited to it on Exhibit "A", hereinafter
27 referred to as "Selling Party," such Selling Party shall be solely responsible for billing its assignee or assignees and shall remain primarily
28 liable to the other Parties for the interest or interests assigned until such time as Selling Party has (1) designated and qualified the
29 assignees to receive the billing for its interest, (2) designated assignees have been approved and accepted by Operator, and (3) has
30 furnished to Operator written notice of the conveyance and photocopy of the recorded assignments by which the transfer is made. The
31 sale or other disposition of any interest in the leases covered by this agreement shall be made specifically subject to the provisions of this
32 Article. Operator's approval shall not be unreasonably withheld.
33

34 **E. Horizontal Wells:**

35 1. Notwithstanding anything contained herein to the contrary, (i) the provisions of Article VI.C.1 Option No. 1 shall apply to
36 any Horizontal Well or Multi-lateral Well proposed hereunder, and (ii) the provisions of Article VI.C.1. Option No. 2 shall apply to
37 all other wells proposed hereunder that are not expressly proposed as Horizontal Wells or Multi-lateral Wells. To be effective as a
38 Horizontal Well Proposal, such proposal must include an AFE, the corresponding anticipated Unit and Contract Area size and
39 dimensions within which the well will be drilled, and other accompanying documents that clearly indicate the well being proposed is
40 a Horizontal Well or Multi-lateral Well. As to any possible conflicts that may arise during the completion phase of a Horizontal
41 Well or Multi-lateral Well, priority shall be given first to a Lateral drain hole of the authorized depth, and then to objective
42 formations in ascending order above the authorized depth, and then to objective formations in descending order below the
43 authorized depth.

44 2. Operator shall have the right to cease drilling a Horizontal Well or Multi-lateral Well at any time, for any reason, and such
45 Horizontal Well or Multi-lateral Well shall be deemed to have reached its objective depth so long as Operator has drilled such
46 Horizontal Well or Multi-lateral Well to the objective formation and has drilled laterally in the objective formation for a distance
47 which is at least equal to fifty percent (50%) of the length of the total horizontal drainhole displacement (displacement from true
48 vertical) proposed for the operation. In like manner, Operator may continue drilling to extend a proposed lateral in a Horizontal
49 Well or Multi-lateral Well up to 10% longer than the length proposed in the proposal approved by the Parties if in Operator's sole
50 judgment, it would be reasonably prudent to do so.
51

52 **F. Sidetracking:**

53 Notwithstanding the provisions of Article VI.B(5), "Sidetracking", such paragraph shall not be applicable to operations in the
54 lateral portion of a Horizontal Well or Multi-lateral Well. Drilling operations which are intended to recover penetration of the
55 target interval which are conducted in a Horizontal Well or Multi-lateral Well shall be considered as included in the original
56 proposed drilling operations.
57

58 **G. Further Assurances:**

59 In connection with this agreement, the parties agree to execute and deliver such additional documents and instruments and to
60 perform such additional acts as may be necessary or appropriate to effectuate, carry out, and perform all the terms, provisions and
61 conditions of this agreement. Without limiting the generality of the foregoing, the parties agree to execute and deliver to Operator one or
62 more Recording Supplement to Operating Agreement and Financing Statement in the form of Exhibit "H" in recordable form, giving
63 notice of the existence of this Operating Agreement, which Operator shall cause to be recorded in the county or counties in which any
64 portion of the Contract Area is located.
65

66 **H. Covenants Running with the Land:**

67 The terms, provisions, covenants and conditions of this agreement shall be deemed to be covenants running with the lands, the
68 lease or leases and leasehold estate covered hereby, and all of the terms, provisions, covenants and conditions of this agreement shall
69 be binding upon and inure to the benefit of the parties hereto, their respective successors and assigns.
70

71 **I. Headings:**

72 All headings in this agreement are for reference purposes only and have no binding effect on the terms, conditions or
73 provisions of this agreement.
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J. Indemnity for Access to Contract Area:

Each Non-Operator shall indemnify and hold Operator harmless against any and all liability in excess of insurance coverage carried for the joint account for injury to each such Non-Operator's officers, employees and/or agents resulting from and in any way relating to such officers', employees', and/or agents' presence on the Contract Area. The Non-Operators indemnity to Operator shall also apply to any other person whose presence on the Contract Area is at the insistence of such Non-Operator.

K. Contract Area and Drilling Unit:

"Contract Area" shall mean a contiguous area in size and configuration as determined by the Operator in order to accommodate anticipated wells, wellbore paths and wellbore lengths located or to be located within the anticipated Drilling Unit. The Contract Area shall be, to the extent practicable, the same as the Drilling Unit, and shall include all Oil and Gas Leases and Oil and Gas Interests within the boundary of the Contract Area, and may include oil and gas leases or oil and gas interests not controlled or owned by the Parties to this Agreement or other interests which cannot be included in the Drilling Unit at the time the Drilling Unit is formed or created but are reasonably anticipated to be controlled or acquired by the Parties in the future. The Parties shall make good faith efforts to include otherwise stranded acreage in a Contract Area where reasonably practical.

L. Working Interest Adjustment:

Any recalculation or adjustment of the Parties' Exhibit "A" working interests pursuant to Articles VIII.A, VIII.B or XVI.M of this Agreement shall be recalculated or adjusted after written notice is provided to the affected party(ies) of such recalculation or adjustment of working interest. Such recalculation or adjustment shall be made effective as of the date of the lease surrender, renewal, acquisition and/or Contract Area / Drilling Unit Adjustment; provided, however, any such recalculation or adjustment to the Parties' working interests prior to the date of the first sale of production from such Drilling Unit shall be made effective as of the date first costs were incurred on and for such Drilling Unit.

This Article XVII.L shall not apply to loss or failure of title pursuant to Article IV.B of this Agreement.

M. Contract Area / Drilling Unit Adjustment:

It is recognized by the Parties that it may be prudent and/or necessary to enlarge or reduce the size of an existing Contract Area / Drilling Unit and/or include within an existing Contract Area / Drilling Unit acreage which was not initially included therein. Without the consent of the Parties, an existing Contract Area / Drilling Unit may not be enlarged or reduced in size. Such consent shall not be unreasonably withheld, delayed or conditioned. The party proposing such enlargement or reduction to an existing Contract Area / Drilling Unit shall notify the other party(ies) in writing, providing an explanation for the Contract Area / Drilling Unit modification proposal. To the extent a Contract Area / Drilling Unit is modified pursuant to this Agreement, the working interests of the Parties shall be recalculated in the manner set forth in Article XVII.L and a modified declaration of pooled unit shall be prepared and filed of record.

To the extent the Contract Area is modified pursuant to this Agreement, this Agreement shall be amended with revised Exhibits "A," "A-1," and "A-2" and a new Recording Supplement to Operating Agreement and Financing Agreement shall be prepared and filed of record.

This Article XVI.M shall not apply to the loss or failure of title pursuant to Article IV.B of this Agreement.

N. Non-Consent Penalty for Unleased Mineral Owners

In the event an unleased mineral owner elects not to participate in a well proposed in the Contract Area, upon timely commencement of actual drilling operations on such Well, such Non-Consenting Unleased Mineral Owner shall be deemed to have relinquished to the Consenting Parties, and the Consenting Parties shall own and be entitled to receive, in proportion to their respective interests, all of such Non-Consenting Unleased Mineral Owner's interest in the well and share of production therefrom. All of such Non-Consenting Unleased Mineral Owner's interest in the production obtained from the operation in which the Non-Consenting Unleased Mineral Owner did not elect to participate shall be owned by the Consenting parties who will be entitled to receive, in proportion to their respective interests, all of such Non-Consenting Unleased Mineral Owner's interest. Such relinquishment shall be effective until the proceeds of the sale of such share, calculated at the well, or market value thereof if such share is not sold (after deducting applicable ad valorem, production, severance, and excise taxes, royalty, overriding royalty and other interests not excepted by Article III.C payable out of or measured by the production from such well accruing with respect to such interest until it reverts), shall equal the total of the following:

- (i) 200 % of each such Non-Consenting Unleased Mineral Owner's share of the cost of any newly acquired surface equipment beyond the wellhead connections (including but not limited to stock tanks, separators, treaters, pumping equipment and piping), plus ~~100~~²⁰⁰% of each such Non-Consenting Mineral Owner's share of the cost of operation of the well commencing with first production and continuing until each such Non-Consenting Mineral Owner's relinquished interest shall revert to it under other provisions of this Article, it being agreed that each Non-Consenting Mineral Owner's share of such costs and equipment will be that interest which would have been chargeable to such Non-Consenting Mineral Owner had it participated in the well from the beginning of the operations; and
- (ii) 200 % of (a) that portion of the costs and expenses of drilling, Reworking, Sidetracking, Deepening, Plugging Back, testing, Completing, and Recompleting, after deducting any cash contributions received under Article VIII.C., and of (b) that portion of the cost of newly acquired equipment in the well (to and including the wellhead connections), which would have been chargeable to such Non-Consenting Mineral Owner if it had participated therein.

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A.A.P.L. FORM 610 - MODEL FORM OPERATING AGREEMENT - 1989

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IN WITNESS WHEREOF, this agreement shall be effective as of the _____ day of _____,

American Energy - Utica, LLC, who has prepared and circulated this form for execution, represents and warrants that the form was printed from and, with the exception(s) listed below, is identical to the AAPL Form 610-1989 Model Form Operating Agreement, as published in computerized form by Forms On-A-Disk, Inc. No changes, alterations, or modifications, other than those made by strikethrough and/or insertion and that are clearly recognizable as changes, in Articles _____, have been made to the form.

OPERATOR

ATTEST OR WITNESS

American Energy - Utica, LLC
an Oklahoma limited liability company

By: Robert W. Kelly II

Title: Attorney-in-Fact
Address: 301 NW 63rd, Suite 600, Oklahoma City, Oklahoma 73116

NON-OPERATORS

ATTEST OR WITNESS

By: _____

Title: _____
Address: _____

ACKNOWLEDGMENT

STATE OF OKLAHOMA)
) §
COUNTY OF OKLAHOMA)

On this, the ____ day of _____, 20____, before me _____, the undersigned officer, personally appeared Robert W. Kelly II, who acknowledged himself to be the Attorney-in-Fact of American Energy – Utica, LLC, an Oklahoma limited liability company, and that he as such Attorney-in-Fact, being authorized to do so, executed the foregoing instrument for the purpose therein contained by signing the name of the limited liability company by himself as Attorney-in-Fact.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

My Commission Expires: _____
Signature/Notary Public: _____
Name/Notary Public (print): _____

STATE OF _____)
) §
COUNTY OF _____)

On this, the ____ day of _____, 20____, before me _____, the undersigned officer, personally appeared _____, known to me (or satisfactorily proven) to be the person(s) whose name(s) is/are subscribed to the within instrument, and acknowledged that he/she/they executed the same for purposes therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

My Commission Expires: _____
Signature/Notary Public: _____
Name/Notary Public (print): _____

Exhibit A

Exhibit "A"

Attached to and made a part of that certain Unit Operating Agreement
for the Troyer W LND GR Unit.

(1) DESCRIPTION OF LANDS SUBJECT TO THIS AGREEMENT

The Contract Area is shown on Exhibit "A-1" attached hereto.

(2) RESTRICTIONS AS TO DEPTHS, FORMATIONS, OR SUBSTANCES

This Agreement shall cover the Unit Area from fifty feet above the top of the Utica Shale formation to fifty feet below the base of the Point Pleasant formation (as more particularly defined in Article 1 of the Unit Agreement).

(3) PARTIES TO THIS AGREEMENT

American Energy – Utica, LLC
P.O. Box 18756
Oklahoma City, OK
Attention: Serena Evans, Land Director

RHDK Oil & Gas, LLC
3596 State Route 39 NW
Dover, OH 44622
Attention: Keith B. Kimble, Manager

Eclipse Resources I, LP
2121 Old Gatesburg Road, Suite 110
State College, PA 16803
Attention: Marty Byrd

The names and addresses of the remaining parties are set forth in Exhibit "A-3" attached hereto.

(4) PERCENTAGES OR FRACTIONAL INTERESTS OF PARTIES TO THIS AGREEMENT

The owners and interests of the owners are set forth in Exhibit "A-2" attached hereto.

(5) OIL AND GAS LEASES AND/OR OIL AND GAS INTERESTS SUBJECT TO THIS AGREEMENT

See Exhibits "A-2" and "A-3" for a list of the oil and gas leases and interests subject to this agreement.

(6) BURDENS ON PRODUCTION

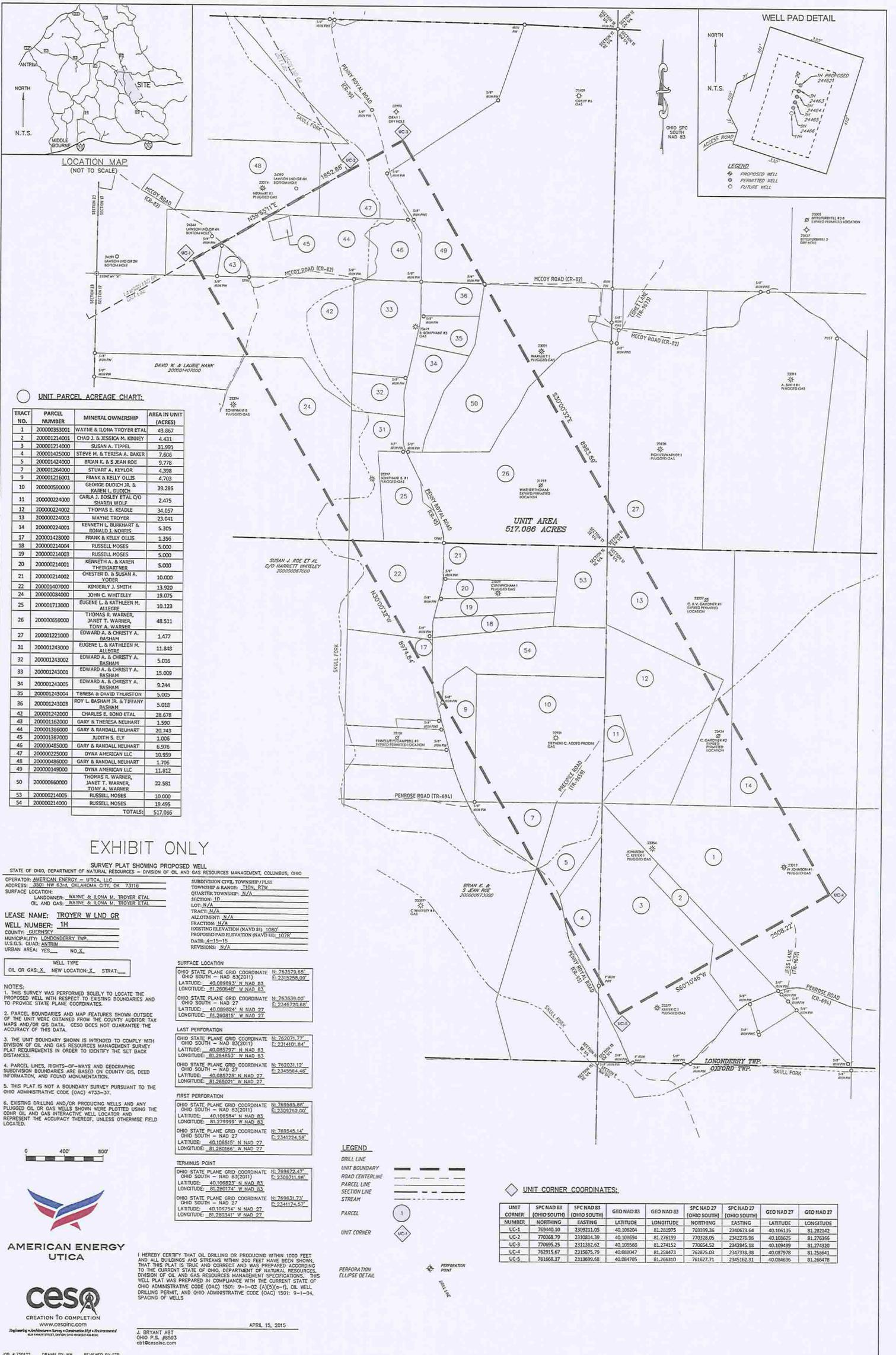
(7) ADDRESSES OF PARTIES FOR NOTICE PURPOSES

The addresses are set forth in Exhibit "A-3" attached hereto.

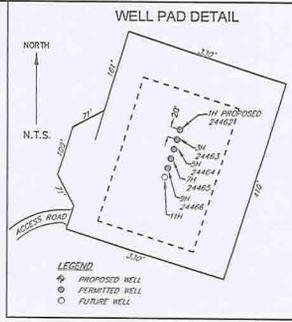
*It is understood by the parties that the interests listed in this Unit Operating Agreement (and any attachments hereto) are estimates only and are subject to change based upon final verification of title, due diligence, or surveying work that may be performed. The parties' interests shall be adjusted to reflect the actual interest owned by the parties in the Contract Area.

End of Exhibit "A"

Exhibit A-1



LOCATION MAP (NOT TO SCALE)



UNIT PARCEL ACREAGE CHART:

TRACT NO.	PARCEL NUMBER	MINERAL OWNERSHIP	AREA IN UNIT (ACRES)
1	200000353001	WAYNE & ILOHA TROYER ET AL	43.867
2	200000214001	CHAD J. & JESSICA M. KINNEY	4.431
3	200000214002	SUSAN A. TIPPET	31.291
4	200000425000	STEVE M. & TERESA A. BAKER	7.606
5	200001424000	BRIAN K. & S. JEAN ROE	9.778
7	200001264000	STUART A. KEYLOR	4.398
9	200000216001	FRANK & KELLY OLLIS	4.703
10	200000590000	GEORGE OLLIS JR. & KAREN L. FUDICH	39.286
11	200000224000	CARLA J. BOSLEY ET AL C/O SIBBERY WOLF	2.475
12	200000224002	THOMAS E. KEADLE	34.057
13	200000224003	WAYNE TROYER	23.041
14	200000224001	KENNETH L. BURKHART & RONALD J. MOSSIS	5.305
17	200001428000	FRANK & KELLY OLLIS	1.356
18	200000214004	RUSSELL MOSES	5.000
19	200000214003	RUSSELL MOSES	5.000
20	200000214001	KENNETH A. & KAREN THEISEN	5.000
21	200000214002	CHESTER D. & SUSAN A. BASHAM	10.000
22	200001407000	KIMBERLY J. SMITH	13.920
24	200000084000	JOHN C. WHITELEY	19.075
25	200001713000	EUGENE L. & KATHLEEN M. ALLEGRE	10.123
26	200000659000	THOMAS R. WARNER, JANET T. WARNER, TONY A. WARNER	48.511
27	200001223000	EDWARD A. & CHRISTY A. BASHAM	1.477
31	200001243000	EUGENE L. & KATHLEEN M. ALLEGRE	11.848
32	200001243002	EDWARD A. & CHRISTY A. BASHAM	5.016
33	200001243001	EDWARD A. & CHRISTY A. BASHAM	15.009
34	200001243005	EDWARD A. & CHRISTY A. BASHAM	9.294
35	200001243004	TERESA & DAVID THURSTON	5.005
36	200001243003	ROY L. BASHAM JR. & TIFFANY BASHAM	5.018
42	200001242000	CHARLES E. BOND ET AL	28.678
43	200001242001	GARY & TERESA NEUMART	1.549
44	200001386000	GARY & RANDALL NEUMART	20.743
45	200001387000	JUDITH S. ELY	1.006
46	200000485000	GARY & RANDALL NEUMART	6.976
47	200000225000	DYNA AMERICAN LLC	10.959
48	200000486000	GARY & RANDALL NEUMART	1.706
49	200000490000	DYNA AMERICAN LLC	11.612
50	200000660000	THOMAS R. WARNER, JANET T. WARNER, TONY A. WARNER	22.581
53	200000214005	RUSSELL MOSES	10.000
54	200000214000	RUSSELL MOSES	19.495
TOTALS:			517.086

EXHIBIT ONLY

SURVEY PLAT SHOWING PROPOSED WELL
 STATE OF OHIO, DEPARTMENT OF NATURAL RESOURCES - DIVISION OF OIL AND GAS RESOURCES MANAGEMENT, COLUMBUS, OHIO
 OPERATOR: AMERICAN ENERGY - UTICA, LLC
 ADDRESS: 3501 NW 6366, OKLAHOMA CITY, OK 73116
 SURFACE LOCATION: TOWNSHIP & RANGE: T10N, R7W; QUARTER TOWNSHIP: N/4; SECTION: 10; LOT: N/4
 LANDOWNER: WAYNE & ILOHA M. TROYER ET AL
 OIL AND GAS: WAYNE & ILOHA M. TROYER ET AL
 LEASE NAME: TROYER W LND GR
 WELL NUMBER: 1H
 COUNTY: SEBERY
 MUNICIPALITY: LONDONDERRY TWP.
 U.S.G.S. QUAD: ANTRIM
 URBAN AREA: YES, NO_X

WELL TYPE
 OIL OR GAS_X, NEW LOCATION_X, STRAT_L

NOTES:
 1. THIS SURVEY WAS PERFORMED SOLELY TO LOCATE THE PROPOSED WELL WITH RESPECT TO EXISTING BOUNDARIES AND TO PROVIDE STATE PLANE COORDINATES.
 2. PARCEL BOUNDARIES AND MAP FEATURES SHOWN OUTSIDE OF THE UNIT WERE OBTAINED FROM THE COUNTY AUDITOR TAX MAPS AND/OR GIS DATA. CESO DOES NOT GUARANTEE THE ACCURACY OF THIS DATA.
 3. THE UNIT BOUNDARY SHOWN IS INTENDED TO COMPLY WITH SUBDIVISION BOUNDARIES BASED ON COUNTY GIS, DEED INFORMATION, AND FOUND MONUMENTATION.
 4. PARCEL LINES, RIGHTS-OF-WAYS AND GEODRAPHIC INFORMATION ARE BASED ON COUNTY GIS, DEED INFORMATION, AND FOUND MONUMENTATION.
 5. THIS PLAT IS NOT A SURVEY PURSUANT TO THE OHIO ADMINISTRATIVE CODE (OAC) 4733-37.
 6. EXISTING DRILLING AND/OR PRODUCING WELLS AND ANY FLUDED OIL OR GAS WELLS SHOWN WERE PLOTTED USING THE COHR OIL AND GAS INTERACTIVE WELL LOCATOR AND REPRESENT THE ACCURACY THEREOF, UNLESS OTHERWISE FIELD LOCATED.

SURFACE LOCATION
 OHIO STATE PLANE GRID COORDINATE N: 263279.65, E: 231526.99
 OHIO SOUTH - NAD 83
 LATITUDE: 40.089823° N NAD 83
 LONGITUDE: 81.260848° W NAD 83

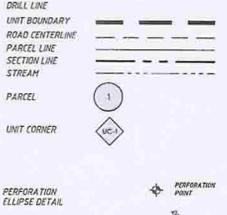
LAST PERFORATION
 OHIO STATE PLANE GRID COORDINATE N: 262071.77, E: 231410.84
 OHIO SOUTH - NAD 83
 LATITUDE: 40.085737° N NAD 83
 LONGITUDE: 81.264853° W NAD 83

FIRST PERFORATION
 OHIO STATE PLANE GRID COORDINATE N: 269585.81, E: 230276.00
 OHIO SOUTH - NAD 83
 LATITUDE: 40.106584° N NAD 83
 LONGITUDE: 81.279999° W NAD 83

TERMINUS POINT
 OHIO STATE PLANE GRID COORDINATE N: 269872.47, E: 230931.88
 OHIO SOUTH - NAD 83
 LATITUDE: 40.106823° N NAD 83
 LONGITUDE: 81.260174° W NAD 83

UNIT CORNER COORDINATES:
 OHIO STATE PLANE GRID COORDINATE N: 268631.23, E: 234174.97
 OHIO SOUTH - NAD 83
 LATITUDE: 40.106754° N NAD 83
 LONGITUDE: 81.260341° W NAD 83

LEGEND



UNIT CORNER	SPC NAD 83 (OHIO SOUTH)	SPC NAD 83 (OHIO SOUTH)	GEO NAD 83	GEO NAD 83	SPC NAD 27 (OHIO SOUTH)	SPC NAD 27 (OHIO SOUTH)	GEO NAD 27	GEO NAD 27
NUMBER	NORTHING	EASTING	NORTHING	LONGITUDE	NORTHING	EASTING	NORTHING	LONGITUDE
UC-1	769440.10	230211.05	40.106204	81.261975	769399.36	2340273.64	40.106135	81.262142
UC-2	770368.79	2310814.39	40.106594	81.276199	770318.05	2342776.96	40.106255	81.276366
UC-3	770975.25	231136.62	40.106566	81.274152	770854.52	2342845.18	40.109499	81.274300
UC-4	769215.67	231576.79	40.089747	81.258471	762976.00	2347478.88	40.087979	81.258641
UC-5	761668.37	231899.68	40.084705	81.266310	761627.71	2345162.31	40.084636	81.266478

I HEREBY CERTIFY THAT OIL DRILLING OR PRODUCING WITHIN 1000 FEET AND ALL BUILDINGS AND STREAMS WITHIN 200 FEET HAVE BEEN SHOWN, THAT THIS PLAT IS TRUE AND CORRECT AND WAS PREPARED ACCORDING TO THE CURRENT STATE OF OHIO, DEPARTMENT OF NATURAL RESOURCES, DIVISION OF OIL AND GAS RESOURCES MANAGEMENT SPECIFICATIONS. THIS WELL PLAT WAS PREPARED IN COMPLIANCE WITH THE CURRENT STATE OF OHIO ADMINISTRATIVE CODE (OAC) 1501: 9-1-02 (A)(5)(c)-1, OIL WELL DRILLING PERMIT, AND OHIO ADMINISTRATIVE CODE (OAC) 1501: 9-1-04, SPACING OF WELLS.

J. BRYANT ABT
 OHIO P.S. #6933
 cbt@cesoinc.com

APRIL 15, 2015

Exhibit A-2

Exhibit "A-2"
Leases Within the Contract Area

Attached to and made a part of that certain Unit Operating Agreement for the Troyer W LND GR Unit

Tract Number	Mineral Owner	Address	Parcel Number	Deed Acreage	Unit Acreage	Tract Participation	AEU Unit WI	AEU Unit Participation	Eclipse WI	Eclipse Unit Participation	Gulfport WI	Gulfport Unit Participation	RHDK WI	RHDK Unit Participation
1	Wayne Troyer and wife, Ilona Troyer	71376 Jasper Road Freeport, Ohio 43973	20-0000353.001	74.8370	29.2447	5.6557%	75.0000%	4.2418%	0.0000%	0.0000%	0.0000%	0.0000%	25.0000%	1.4139%
1	Titus Troyer and wife, Sharon Troyer	56615 County Road 33 Middlebury, Indiana 46540	20-0000353.001	74.8370	14.6223	2.8278%	75.0000%	2.1209%	0.0000%	0.0000%	0.0000%	0.0000%	25.0000%	0.7070%
2	Chad J. Kinney and wife, Jessica M. Kinney	25301 Penrose Road Quaker City, Ohio 43773	20-0001214.001	9.9990	4.4310	0.8569%	0.0000%	0.0000%	100.0000%	0.8569%	0.0000%	0.0000%	0.0000%	0.0000%
3	Susan A. Bonath, fka Susan A. Tippel	5989 Skyline Drive Cambridge, Ohio 43725	20-0001214.000	51.5340	31.9910	6.1868%	100.0000%	6.1868%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
4	Steve M. Baker and wife, Teresa A. Baker	68236 Pennyroyal Road Quaker City, Ohio 43773	20-0001425.000	8.9120	7.6060	1.4709%	100.0000%	1.4709%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
5	Brian K. Roe and wife, S. Jean Roe	68015 Pennyroyal Road Quaker City, Ohio 43773	20-0001424.000	41.0250	9.7780	1.8910%	0.0000%	0.0000%	100.0000%	1.8910%	0.0000%	0.0000%	0.0000%	0.0000%
7	Stuart A. Kaylor	68454 Pennyroyal Road Quaker City, Ohio 43773	20-0001264.000	8.1660	4.3980	0.8505%	75.0000%	0.6379%	0.0000%	0.0000%	0.0000%	0.0000%	25.0000%	0.2126%
9	Frank Ollis and wife, Kelly M. Ollis	68735 Pennyroyal Road Quaker City, Ohio 43773	20-0001216.001	8.6300	4.7030	0.9095%	0.0000%	0.0000%	100.0000%	0.9095%	0.0000%	0.0000%	0.0000%	0.0000%
10	George Dudich, Jr. and wife, Karen L. Dudich	5073 Bryant Cove Drive Evans, Georgia 30809	20-0000590.000	40.5500	39.2860	7.5976%	100.0000%	7.5976%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
11	Thomas E. Keadle	68670 Precipice Lane Quaker City, Ohio 43773	20-0000224.000	2.4750	0.4950	0.0957%	100.0000%	0.0957%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
11	Sharon L. Wolf & Charles T. Wolf	330 Washington Street Barnesville, Ohio 43793	20-0000224.000	2.4750	0.4950	0.0957%	100.0000%	0.0957%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
11	Carla J. Bosley & Carl E. Bosley	6727 Heritage Drive Poplar Bluff, Missouri 63901	20-0000224.000	2.4750	0.4950	0.0957%	100.0000%	0.0957%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
11	Melanie S. White & Don White	70010 Rainbow Road Lore City, Ohio 43755	20-0000224.000	2.4750	0.4950	0.0957%	100.0000%	0.0957%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
11	Judith K. Kerns & Jeffrey J. Kerns	22416 Johnson Road Raymond, Ohio 43067	20-0000224.000	2.4750	0.4950	0.0957%	100.0000%	0.0957%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
12	Thomas E. Keadle	68670 Precipice Lane Quaker City, Ohio 43773	20-0000224.002	34.5230	34.0570	6.5863%	75.0000%	4.9397%	0.0000%	0.0000%	0.0000%	0.0000%	25.0000%	1.6466%
13	Vine Royalty LP Contact: Robert L. Gaudin	307 West 7th Street, Suite 300 Fort Worth, Texas 76102	20-0000224.003	43.8820	6.9123	1.3368%	75.0000%	1.0026%	0.0000%	0.0000%	0.0000%	0.0000%	25.0000%	0.3342%
13	Buckeye Mineral & Royalties, LLC Contact: CT Corporation System	2121 Old Gatesburg Road, Suite 110 State College, Pennsylvania 16803	20-0000224.003	43.8820	16.1287	3.1192%	75.0000%	2.3394%	0.0000%	0.0000%	0.0000%	0.0000%	25.0000%	0.7798%
14	Ronald J. Norris & Patricia H. Norris	2135 Field Circle Avenue Akron, Ohio 44312	20-0000224.001	80.0000	2.6525	0.5130%	75.0000%	0.3847%	0.0000%	0.0000%	0.0000%	0.0000%	25.0000%	0.1282%
14	Kenneth L. Burkhart & Delores C. Burkhart	3775 Greenock Drive Uniontown, Ohio 44685	20-0000224.001	80.0000	2.6525	0.5130%	75.0000%	0.3847%	0.0000%	0.0000%	0.0000%	0.0000%	25.0000%	0.1282%
17	Frank & Kelly Ollis	68735 Pennyroyal Road Quaker City, Ohio 43773	20-0001428.000	19.7490	1.3560	0.2622%	0.0000%	0.0000%	0.0000%	0.0000%	100.0000%	0.2622%	0.0000%	0.0000%
18	Russell Moses	137 Park Avenue Southwest Canton, Ohio 44706	20-0000214.004	5.0000	5.0000	0.9670%	100.0000%	0.9670%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
19	Russell Moses	137 Park Avenue Southwest Canton, Ohio 44706	20-0000214.003	5.0000	5.0000	0.9670%	100.0000%	0.9670%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%

Tract Number	Mineral Owner	Address	Parcel Number	Deed Acreage	Unit Acreage	Tract Participation	AEU Unit WI	AEU Unit Participation	Eclipse WI	Eclipse Unit Participation	Gulfport WI	Gulfport Unit Participation	RHDK WI	RHDK Unit Participation
20	Kenneth A. & Karen Thiergartner	7319 Lonesome Pine Trail Medina, Ohio 44256	20-0000214.001	5.0000	5.0000	0.9670%	75.0000%	0.7252%	0.0000%	0.0000%	0.0000%	0.0000%	25.0000%	0.2417%
21	Chester D. & Susan A. Yoder	32455 Rouggen Road Piedmont, Ohio 43983	20-0000214.002	10.0000	10.0000	1.9339%	100.0000%	1.9339%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
22	Kimberly J. Smith & Robert E. Smith	250 Fair Avenue Quaker City, Ohio 43773	20-0001407.000	20.4830	13.9200	2.6920%	0.0000%	0.0000%	0.0000%	0.0000%	100.0000%	2.6920%	0.0000%	0.0000%
24	Michael Boniphant	1217 3rd Avenue Beaver Falls, Pennsylvania 15010	20-0000084.000	58.1480	6.3583	1.2296%	100.0000%	1.2296%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
24	Brenda K. Reynolds	1218 Katy Cr. NW Uniontown, Ohio 44685	20-0000084.000	58.1480	2.1194	0.4099%	100.0000%	0.4099%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
24	Barbara E. Pittillo	240 Euclid Avenue Bvesville, Ohio 43723	20-0000084.000	58.1480	2.1194	0.4099%	100.0000%	0.4099%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
24	Donald E. Boniphant	3040 13th St. NW Canton, Ohio 44710	20-0000084.000	58.1480	2.1194	0.4099%	100.0000%	0.4099%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
24	Ronald Boniphant	312 W. Crystal Flash Road North Webster, Indiana 46542	20-0000084.000	58.1480	1.0597	0.2049%	100.0000%	0.2049%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
24	Joyce Boniphant	59 East South Street Milford, Indiana 46542	20-0000084.000	58.1480	1.0597	0.2049%	100.0000%	0.2049%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
24	Vickie Shepherd	1224 Williams Drive Circleville, Ohio 43113	20-0000084.000	58.1480	1.0597	0.2049%	100.0000%	0.2049%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
24	Rick Boniphant	1224 Williams Drive Circleville, Ohio 43113	20-0000084.000	58.1480	1.0597	0.2049%	100.0000%	0.2049%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
24	Jason Walvatne	4190 Ben Ficklin Road Apartment 50 San Angelo, Texas 76903	20-0000084.000	58.1480	1.0597	0.2049%	100.0000%	0.2049%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
24	Donna Montgomery	26990 Owl Court Tehachapi, California 93561	20-0000084.000	58.1480	1.0597	0.2049%	100.0000%	0.2049%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
25	Eugene L. & Kathleen M. Allegre	P.O. Box 4 Bunola, Pennsylvania 15020	20-0001713.000	10.1120	3.3743	0.6526%	100.0000%	0.6526%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
25	Brenda K. Reynolds	1218 Katy Cr. NW Uniontown, Ohio 44685	20-0001713.000	10.1120	1.1248	0.2175%	100.0000%	0.2175%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
25	Barbara E. Pittillo	240 Euclid Avenue Bvesville, Ohio 43723	20-0001713.000	10.1120	1.1248	0.2175%	100.0000%	0.2175%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
25	Donald E. Boniphant	3040 13th St. NW Canton, Ohio 44710	20-0001713.000	10.1120	1.1248	0.2175%	100.0000%	0.2175%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
25	Ronald Boniphant	312 W. Crystal Flash Road North Webster, Indiana 46542	20-0001713.000	10.1120	0.5624	0.1088%	100.0000%	0.1088%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
25	Joyce Boniphant	59 East South Street Milford, Indiana 46542	20-0001713.000	10.1120	0.5624	0.1088%	100.0000%	0.1088%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
25	Vickie Shepherd	1224 Williams Drive Circleville, Ohio 43113	20-0001713.000	10.1120	0.5624	0.1088%	100.0000%	0.1088%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
25	Rick Boniphant	1224 Williams Drive Circleville, Ohio 43113	20-0001713.000	10.1120	0.5624	0.1088%	100.0000%	0.1088%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
25	Jason Walvatne	4190 Ben Ficklin Road Apartment 50 San Angelo, Texas 76903	20-0001713.000	10.1120	0.5624	0.1088%	100.0000%	0.1088%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
25	Donna Montgomery	26990 Owl Court Tehachapi, California 93561	20-0001713.000	10.1120	0.5624	0.1088%	100.0000%	0.1088%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
26	Thomas R. Warner & Janet T. Warner	24880 McCoy Road Freeport, Ohio 43973	20-0000659.000	21.3800	32.3407	6.2544%	75.0000%	4.6908%	0.0000%	0.0000%	0.0000%	0.0000%	25.0000%	1.5636%

Tract Number	Mineral Owner	Address	Parcel Number	Deed Acreage	Unit Acreage	Tract Participation	AEU Unit WI	AEU Unit Participation	Eclipse WI	Eclipse Unit Participation	Gulfport WI	Gulfport Unit Participation	RHDK WI	RHDK Unit Participation
26	Tony A. Warner & Michelle L. Warner	21361 Bridgewater Road Quaker City, Ohio 43773	20-0000659.000	21.3800	16.1703	3.1272%	75.0000%	2.3454%	0.0000%	0.0000%	0.0000%	0.0000%	25.0000%	0.7818%
27	Edward A. & Christy A. Basham	25022 McCoy Road Freeport, Ohio 43973	20-0001221.000	51.8670	1.4770	0.2856%	75.0000%	0.2142%	0.0000%	0.0000%	0.0000%	0.0000%	25.0000%	0.0714%
31	Eugene L. & Kathleen M. Allegre	P.O. Box 4 Bunola, Pennsylvania 15020	20-0001243.000	10.8760	3.9493	0.7638%	100.0000%	0.7638%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
31	Brenda K. Reynolds	1218 Katy Cr. NW Uniontown, Ohio 44685	20-0001243.000	10.8760	1.3164	0.2546%	100.0000%	0.2546%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
31	Barbara E. Pittillo	240 Euclid Avenue Bvesville, Ohio 43723	20-0001243.000	10.8760	1.3164	0.2546%	100.0000%	0.2546%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
31	Donald E. Boniphant	3040 13th St. NW Canton, Ohio 44710	20-0001243.000	10.8760	1.3164	0.2546%	100.0000%	0.2546%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
31	Ronald Boniphant	312 W. Crystal Flash Road North Webster, Indiana 46542	20-0001243.000	10.8760	0.6582	0.1273%	100.0000%	0.1273%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
31	Joyce Boniphant	59 East South Street Milford, Indiana 46542	20-0001243.000	10.8760	0.6582	0.1273%	100.0000%	0.1273%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
31	Vickie Shepherd	1224 Williams Drive Circleville, Ohio 43113	20-0001243.000	10.8760	0.6582	0.1273%	100.0000%	0.1273%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
31	Rick Boniphant	1224 Williams Drive Circleville, Ohio 43113	20-0001243.000	10.8760	0.6582	0.1273%	100.0000%	0.1273%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
31	Jason Walvatne	4190 Ben Ficklin Road Apartment 50 San Angelo, Texas 76903	20-0001243.000	10.8760	0.6582	0.1273%	100.0000%	0.1273%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
31	Donna Montgomery	26990 Owl Court Tehachapi, California 93561	20-0001243.000	10.8760	0.6582	0.1273%	100.0000%	0.1273%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
32	Edward A. & Christy A. Basham	25022 McCoy Road Freeport, Ohio 43973	20-0001243.002	6.0190	1.6720	0.3234%	100.0000%	0.3234%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
32	Brenda K. Reynolds	1218 Katy Cr. NW Uniontown, Ohio 44685	20-0001243.002	6.0190	0.5573	0.1078%	100.0000%	0.1078%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
32	Barbara E. Pittillo	240 Euclid Avenue Bvesville, Ohio 43723	20-0001243.002	6.0190	0.5573	0.1078%	100.0000%	0.1078%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
32	Donald E. Boniphant	3040 13th St. NW Canton, Ohio 44710	20-0001243.002	6.0190	0.5573	0.1078%	100.0000%	0.1078%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
32	Ronald Boniphant	312 W. Crystal Flash Road North Webster, Indiana 46542	20-0001243.002	6.0190	0.2787	0.0539%	100.0000%	0.0539%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
32	Joyce Boniphant	59 East South Street Milford, Indiana 46542	20-0001243.002	6.0190	0.2787	0.0539%	100.0000%	0.0539%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
32	Vickie Shepherd	1224 Williams Drive Circleville, Ohio 43113	20-0001243.002	6.0190	0.2787	0.0539%	100.0000%	0.0539%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
32	Rick Boniphant	1224 Williams Drive Circleville, Ohio 43113	20-0001243.002	6.0190	0.2787	0.0539%	100.0000%	0.0539%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
32	Jason Walvatne	4190 Ben Ficklin Road Apartment 50 San Angelo, Texas 76903	20-0001243.002	6.0190	0.2787	0.0539%	100.0000%	0.0539%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
32	Donna Montgomery	26990 Owl Court Tehachapi, California 93561	20-0001243.002	6.0190	0.2787	0.0539%	100.0000%	0.0539%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
33	Edward A. & Christy A. Basham	25022 McCoy Road Freeport, Ohio 43973	20-0001243.001	15.0090	5.0030	0.9675%	100.0000%	0.9675%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
33	Brenda K. Reynolds	1218 Katy Cr. NW Uniontown, Ohio 44685	20-0001243.001	15.0090	1.6677	0.3225%	100.0000%	0.3225%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%

Tract Number	Mineral Owner	Address	Parcel Number	Deed Acreage	Unit Acreage	Tract Participation	AEU Unit WI	AEU Unit Participation	Eclipse WI	Eclipse Unit Participation	Gulfport WI	Gulfport Unit Participation	RHDK WI	RHDK Unit Participation
33	Barbara E. Pittillo	240 Euclid Avenue Byesville, Ohio 43723	20-0001243.001	15.0090	1.6677	0.3225%	100.0000%	0.3225%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
33	Donald E. Boniphant	3040 13th St. NW Canton, Ohio 44710	20-0001243.001	15.0090	1.6677	0.3225%	100.0000%	0.3225%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
33	Ronald Boniphant	312 W. Crystal Flash Road North Webster, Indiana 46542	20-0001243.001	15.0090	0.8338	0.1613%	100.0000%	0.1613%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
33	Joyce Boniphant	59 East South Street Milford, Indiana 46542	20-0001243.001	15.0090	0.8338	0.1613%	100.0000%	0.1613%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
33	Vickie Shepherd	1224 Williams Drive Circleville, Ohio 43113	20-0001243.001	15.0090	0.8338	0.1613%	100.0000%	0.1613%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
33	Rick Boniphant	1224 Williams Drive Circleville, Ohio 43113	20-0001243.001	15.0090	0.8338	0.1613%	100.0000%	0.1613%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
33	Jason Walvatne	4190 Ben Ficklin Road Apartment 50 San Angelo, Texas 76903	20-0001243.001	15.0090	0.8338	0.1613%	100.0000%	0.1613%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
33	Donna Montgomery	26990 Owl Court Tehachapi, California 93561	20-0001243.001	15.0090	0.8338	0.1613%	100.0000%	0.1613%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
34	Edward A. & Christy A. Basham	25022 McCoy Road Freeport, Ohio 43973	20-0001243.005	8.2440	3.0813	0.5959%	100.0000%	0.5959%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
34	Brenda K. Reynolds	1218 Katy Cr. NW Uniontown, Ohio 44685	20-0001243.005	8.2440	1.0271	0.1986%	100.0000%	0.1986%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
34	Barbara E. Pittillo	240 Euclid Avenue Byesville, Ohio 43723	20-0001243.005	8.2440	1.0271	0.1986%	100.0000%	0.1986%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
34	Donald E. Boniphant	3040 13th St. NW Canton, Ohio 44710	20-0001243.005	8.2440	1.0271	0.1986%	100.0000%	0.1986%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
34	Ronald Boniphant	312 W. Crystal Flash Road North Webster, Indiana 46542	20-0001243.005	8.2440	0.5136	0.0993%	100.0000%	0.0993%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
34	Joyce Boniphant	59 East South Street Milford, Indiana 46542	20-0001243.005	8.2440	0.5136	0.0993%	100.0000%	0.0993%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
34	Vickie Shepherd	1224 Williams Drive Circleville, Ohio 43113	20-0001243.005	8.2440	0.5136	0.0993%	100.0000%	0.0993%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
34	Rick Boniphant	1224 Williams Drive Circleville, Ohio 43113	20-0001243.005	8.2440	0.5136	0.0993%	100.0000%	0.0993%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
34	Jason Walvatne	4190 Ben Ficklin Road Apartment 50 San Angelo, Texas 76903	20-0001243.005	8.2440	0.5136	0.0993%	100.0000%	0.0993%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
34	Donna Montgomery	26990 Owl Court Tehachapi, California 93561	20-0001243.005	8.2440	0.5136	0.0993%	100.0000%	0.0993%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
35	Teresa & David Thurston	69400 Pennyroyal Road Quaker City, Ohio 43773	20-0001243.004	5.0210	1.6683	0.3226%	100.0000%	0.3226%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
35	Brenda K. Reynolds	1218 Katy Cr. NW Uniontown, Ohio 44685	20-0001243.004	5.0210	0.5561	0.1075%	100.0000%	0.1075%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
35	Barbara E. Pittillo	240 Euclid Avenue Byesville, Ohio 43723	20-0001243.004	5.0210	0.5561	0.1075%	100.0000%	0.1075%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
35	Donald E. Boniphant	3040 13th St. NW Canton, Ohio 44710	20-0001243.004	5.0210	0.5561	0.1075%	100.0000%	0.1075%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
35	Ronald Boniphant	312 W. Crystal Flash Road North Webster, Indiana 46542	20-0001243.004	5.0210	0.2781	0.0538%	100.0000%	0.0538%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
35	Joyce Boniphant	59 East South Street Milford, Indiana 46542	20-0001243.004	5.0210	0.2781	0.0538%	100.0000%	0.0538%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%

Tract Number	Mineral Owner	Address	Parcel Number	Deed Acreage	Unit Acreage	Tract Participation	AEU Unit WI	AEU Unit Participation	Eclipse WI	Eclipse Unit Participation	Gulfport WI	Gulfport Unit Participation	RHDK WI	RHDK Unit Participation
35	Vickie Shepherd	1224 Williams Drive Circleville, Ohio 43113	20-0001243.004	5.0210	0.2781	0.0538%	100.0000%	0.0538%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
35	Rick Boniphant	1224 Williams Drive Circleville, Ohio 43113	20-0001243.004	5.0210	0.2781	0.0538%	100.0000%	0.0538%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
35	Jason Walvatne	4190 Ben Ficklin Road Apartment 50 San Angelo, Texas 76903	20-0001243.004	5.0210	0.2781	0.0538%	100.0000%	0.0538%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
35	Donna Montgomery	26990 Owl Court Tehachapi, California 93561	20-0001243.004	5.0210	0.2781	0.0538%	100.0000%	0.0538%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
36	Roy L. Basham, Jr. & Tiffany Basham	25022 McCoy Road Freeport, Ohio 43973	20-0001243.003	6.0020	1.6727	0.3235%	100.0000%	0.3235%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
36	Brenda K. Reynolds	1218 Katy Cr. NW Uniontown, Ohio 44685	20-0001243.003	6.0020	0.5576	0.1078%	100.0000%	0.1078%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
36	Barbara E. Pittillo	240 Euclid Avenue Byesville, Ohio 43723	20-0001243.003	6.0020	0.5576	0.1078%	100.0000%	0.1078%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
36	Donald E. Boniphant	3040 13th St. NW Canton, Ohio 44710	20-0001243.003	6.0020	0.5576	0.1078%	100.0000%	0.1078%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
36	Ronald Boniphant	312 W. Crystal Flash Road North Webster, Indiana 46542	20-0001243.003	6.0020	0.2788	0.0539%	100.0000%	0.0539%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
36	Joyce Boniphant	59 East South Street Milford, Indiana 46542	20-0001243.003	6.0020	0.2788	0.0539%	100.0000%	0.0539%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
36	Vickie Shepherd	1224 Williams Drive Circleville, Ohio 43113	20-0001243.003	6.0020	0.2788	0.0539%	100.0000%	0.0539%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
36	Rick Boniphant	1224 Williams Drive Circleville, Ohio 43113	20-0001243.003	6.0020	0.2788	0.0539%	100.0000%	0.0539%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
36	Jason Walvatne	4190 Ben Ficklin Road Apartment 50 San Angelo, Texas 76903	20-0001243.003	6.0020	0.2788	0.0539%	100.0000%	0.0539%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
36	Donna Montgomery	26990 Owl Court Tehachapi, California 93561	20-0001243.003	6.0020	0.2788	0.0539%	100.0000%	0.0539%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
42	Dale E. Bond	24294 McCoy Road Quaker City, Ohio 43773	20-0001242.000	53.5000	5.7356	1.1092%	100.0000%	1.1092%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
42	Marlene S. Bond	24294 McCoy Road Quaker City, Ohio 43773	20-0001242.000	53.5000	5.7356	1.1092%	100.0000%	1.1092%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
42	Joan K. Bond	24294 McCoy Road Quaker City, Ohio 43773	20-0001242.000	53.5000	5.7356	1.1092%	100.0000%	1.1092%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
42	Janet L. Bond	24294 McCoy Road Quaker City, Ohio 43773	20-0001242.000	53.5000	5.7356	1.1092%	100.0000%	1.1092%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
42	Jeffrey Lee Bond	24294 McCoy Road Quaker City, Ohio 43773	20-0001242.000	53.5000	1.4339	0.2773%	100.0000%	0.2773%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
42	Paul Scott Bond	3190 S. Kemp Road Cridersville, Ohio 43773	20-0001242.000	53.5000	1.4339	0.2773%	100.0000%	0.2773%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
42	Deanna E. Bond	72757 Penny Royal Road Freeport, Ohio 43973	20-0001242.000	53.5000	1.4339	0.2773%	100.0000%	0.2773%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
42	Randall Erik Bond	3190 S. Kemp Road Cridersville, Ohio 43773	20-0001242.000	53.5000	1.4339	0.2773%	100.0000%	0.2773%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
43	Gary & Theresa Neuhart	24232 McCoy Road Quaker City, Ohio 43773	20-0001162.000	1.5890	1.5900	0.3075%	100.0000%	0.3075%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
44	Gary W. Neuhart & Theresa Neuhart	24232 McCoy Rd. Quaker City, Ohio 43773	20-0001386.000	17.4050	10.3715	2.0058%	75.0000%	1.5043%	0.0000%	0.0000%	0.0000%	0.0000%	25.0000%	0.5014%

Tract Number	Mineral Owner	Address	Parcel Number	Deed Acreage	Unit Acreage	Tract Participation	AEU Unit WI	AEU Unit Participation	Eclipse WI	Eclipse Unit Participation	Gulfport WI	Gulfport Unit Participation	RHDK WI	RHDK Unit Participation
44	Randall R. Neuhart & Nancy L. Neuhart	23990 McCoy Road Quaker City, Ohio 43773	20-0001386.000	17.4050	10.3715	2.0058%	75.0000%	1.5043%	0.0000%	0.0000%	0.0000%	0.0000%	25.0000%	0.5014%
45	Judith S. Ely	24365 McCoy Road Quaker City, Ohio 43773	20-0001387.000	1.0060	1.0060	0.1946%	100.0000%	0.1946%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
46	Gary W. Neuhart & Theresa Neuhart	24232 McCoy Rd. Quaker City, Ohio 43773	20-0000485.000	20.1900	3.4880	0.6745%	75.0000%	0.5059%	0.0000%	0.0000%	0.0000%	0.0000%	25.0000%	0.1686%
46	Randall R. Neuhart & Nancy L. Neuhart	23990 McCoy Road Quaker City, Ohio 43773	20-0000485.000	20.1900	3.4880	0.6745%	75.0000%	0.5059%	0.0000%	0.0000%	0.0000%	0.0000%	25.0000%	0.1686%
47	Jon Matthew Crislip	70000 Broken Track Lane Freeport, Ohio 43973	20-0000225.000	75.5465	10.9590	2.1194%	100.0000%	2.1194%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
48	Gary W. Neuhart & Theresa Neuhart	24232 McCoy Rd. Quaker City, Ohio 43773	20-0000486.000	48.9700	0.8530	0.1650%	75.0000%	0.1237%	0.0000%	0.0000%	0.0000%	0.0000%	25.0000%	0.0412%
48	Randall R. Neuhart & Nancy L. Neuhart	23990 McCoy Road Quaker City, Ohio 43773	20-0000486.000	48.9700	0.8530	0.1650%	75.0000%	0.1237%	0.0000%	0.0000%	0.0000%	0.0000%	25.0000%	0.0412%
49	DynAmerican, LLC Contact: J. Matthew Crislip	70000 Broken Track Lane Freeport, Ohio 43973	20-0000149.000	104.8000	11.8120	2.2843%	100.0000%	2.2843%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
50	Thomas R. Warner & Janet T. Warner	24880 McCoy Road Freeport, Ohio 43973	20-0000660.000	41.2400	15.0540	2.9113%	75.0000%	2.1835%	0.0000%	0.0000%	0.0000%	0.0000%	25.0000%	0.7278%
50	Tony A. Warner & Michelle L. Warner	21361 Bridgewater Road Quaker City, Ohio 43773	20-0000660.000	41.2400	7.5270	1.4557%	75.0000%	1.0917%	0.0000%	0.0000%	0.0000%	0.0000%	25.0000%	0.3639%
53	Russell Moses	137 Park Avenue Southwest Canton, Ohio 44706	20-0000214.005	10.0000	10.0000	1.9339%	100.0000%	1.9339%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
54	Russell Moses	137 Park Avenue Southwest Canton, Ohio 44706	20-0000214.000	19.6860	19.4950	3.7702%	100.0000%	3.7702%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
Total					517.086	100.0000%	AEU	82.8648%	Eclipse	3.6574%	Gulfport	2.9542%	Red Hill	10.5235%

TOTAL UNIT ACRES	517.086
TOTAL AEU UNIT ACRES	428.4825
TOTAL ECLIPES UNIT ACRES	18.912
TOTAL GULFPORT UNIT ACRES	15.276
TOTAL RHDK UNIT ACRES	54.4155

End of Exhibit "A-2"

Exhibit A-3(a)

Exhibit "A-3(a)"

Non-Conforming Leases to be Unitized in the Contract Area

Attached to and made a part of that certain Unit Operating Agreement for the Troyer W LND GR Unit

Tract Number	Mineral Owner	Address	Parcel Number	Deed Acreage	Unit Acreage	Tract Participation	AEU Unit WI	AEU Unit Participation
10	George Dudich, Jr. & Karen L. Dudich	5073 Bryant Cove Drive Evans, Georgia 30809	20-0000590.000	40.5500	39.286	7.5976%	100.0000%	7.597600%
24	Michael Boniphant*	1217 3rd Avenue Beaver Falls, Pennsylvania 15010	20-0000084.000	58.1480	6.3583	1.2296%	100.0000%	1.2296%
24	Brenda K. Reynolds	1218 Katy Cr. NW Uniontown, Ohio 44685	20-0000084.000	58.1480	2.1194	0.4099%	100.0000%	0.0000%
24	Barbara E. Pittillo	240 Euclid Avenue Byesville, Ohio 43723	20-0000084.000	58.1480	2.1194	0.4099%	100.0000%	0.0000%
24	Donald E. Boniphant	3040 13th St. NW Canton, Ohio 44710	20-0000084.000	58.1480	2.1194	0.4099%	100.0000%	0.0000%
24	Ronald Boniphant*	312 W. Crystal Flash Road North Webster, Indiana 46542	20-0000084.000	58.1480	1.0597	0.2049%	100.0000%	0.2049%
24	Joyce Boniphant*	59 East South Street Milford, Indiana 46542	20-0000084.000	58.1480	1.0597	0.2049%	100.0000%	0.2049%
24	Vickie Shepherd*	1224 Williams Drive Circleville, Ohio 43113	20-0000084.000	58.1480	1.0597	0.2049%	100.0000%	0.2049%
24	Rick Boniphant*	1224 Williams Drive Circleville, Ohio 43113	20-0000084.000	58.1480	1.0597	0.2049%	100.0000%	0.2049%
24	Jason Walvatne	4190 Ben Ficklin Road Apartment 50 San Angelo, Texas 76903	20-0000084.000	58.1480	1.0597	0.2049%	100.0000%	0.0000%
24	Donna Montgomery*	26990 Owl Court Tehachapi, California 93561	20-0000084.000	58.1480	1.0597	0.2049%	100.0000%	0.2049%

Tract Number	Mineral Owner	Address	Parcel Number	Deed Acreage	Unit Acreage	Tract Participation	AEU Unit WI	AEU Unit Participation
25	Eugene L. & Kathleen M. Allegre*	P.O. Box 4 Bunola, Pennsylvania 15020	20-0001713.000	10.1120	3.3743	0.6526%	100.0000%	0.6526%
25	Brenda K. Reynolds	1218 Katy Cr. NW Uniontown, Ohio 44685	20-0001713.000	10.1120	1.1248	0.2175%	100.0000%	0.0000%
25	Barbara E. Pittillo	240 Euclid Avenue Byesville, Ohio 43723	20-0001713.000	10.1120	1.1248	0.2175%	100.0000%	0.0000%
25	Donald E. Boniphant	3040 13th St. NW Canton, Ohio 44710	20-0001713.000	10.1120	1.1248	0.2175%	100.0000%	0.0000%
25	Ronald Boniphant*	312 W. Crystal Flash Road North Webster, Indiana 46542	20-0001713.000	10.1120	0.5624	0.1088%	100.0000%	0.1088%
25	Joyce Boniphant*	59 East South Street Milford, Indiana 46542	20-0001713.000	10.1120	0.5624	0.1088%	100.0000%	0.1088%
25	Vickie Shepherd*	1224 Williams Drive Circleville, Ohio 43113	20-0001713.000	10.1120	0.5624	0.1088%	100.0000%	0.1088%
25	Rick Boniphant*	1224 Williams Drive Circleville, Ohio 43113	20-0001713.000	10.1120	0.5624	0.1088%	100.0000%	0.1088%
25	Jason Walvatne	4190 Ben Ficklin Road Apartment 50 San Angelo, Texas 76903	20-0001713.000	10.1120	0.5624	0.1088%	100.0000%	0.0000%
25	Donna Montgomery*	26990 Owl Court Tehachapi, California 93561	20-0001713.000	10.1120	0.5624	0.1088%	100.0000%	0.1088%
31	Eugene L. & Kathleen M. Allegre*	P.O. Box 4 Bunola, Pennsylvania 15020	20-0001243.000	10.8760	3.9493	0.7638%	100.0000%	0.7638%
31	Brenda K. Reynolds	1218 Katy Cr. NW Uniontown, Ohio 44685	20-0001243.000	10.8760	1.3164	0.2546%	100.0000%	0.0000%
31	Barbara E. Pittillo	240 Euclid Avenue Byesville, Ohio 43723	20-0001243.000	10.8760	1.3164	0.2546%	100.0000%	0.0000%
31	Donald E. Boniphant	3040 13th St. NW Canton, Ohio 44710	20-0001243.000	10.8760	1.3164	0.2546%	100.0000%	0.0000%
31	Ronald Boniphant*	312 W. Crystal Flash Road North Webster, Indiana 46542	20-0001243.000	10.8760	0.6582	0.1273%	100.0000%	0.1273%

Tract Number	Mineral Owner	Address	Parcel Number	Deed Acreage	Unit Acreage	Tract Participation	AEU Unit WI	AEU Unit Participation
31	Joyce Boniphant*	59 East South Street Milford, Indiana 46542	20-0001243.000	10.8760	0.6582	0.1273%	100.0000%	0.1273%
31	Vickie Shepherd*	1224 Williams Drive Circleville, Ohio 43113	20-0001243.000	10.8760	0.6582	0.1273%	100.0000%	0.1273%
31	Rick Boniphant*	1224 Williams Drive Circleville, Ohio 43113	20-0001243.000	10.8760	0.6582	0.1273%	100.0000%	0.1273%
31	Jason Walvatne	4190 Ben Ficklin Road Apartment 50 San Angelo, Texas 76903	20-0001243.000	10.8760	0.6582	0.1273%	100.0000%	0.0000%
31	Donna Montgomery*	26990 Owl Court Tehachapi, California 93561	20-0001243.000	10.8760	0.6582	0.1273%	100.0000%	0.1273%
32	Edward A. & Christy A. Basham*	25022 McCoy Road Freeport, Ohio 43973	20-0001243.002	6.0190	1.672	0.3234%	100.0000%	0.3234%
32	Brenda K. Reynolds	1218 Katy Cr. NW Uniontown, Ohio 44685	20-0001243.002	6.0190	0.5573	0.1078%	100.0000%	0.0000%
32	Barbara E. Pittillo	240 Euclid Avenue Byesville, Ohio 43723	20-0001243.002	6.0190	0.5573	0.1078%	100.0000%	0.0000%
32	Donald E. Boniphant	3040 13th St. NW Canton, Ohio 44710	20-0001243.002	6.0190	0.5573	0.1078%	100.0000%	0.0000%
32	Ronald Boniphant*	312 W. Crystal Flash Road North Webster, Indiana 46542	20-0001243.002	6.0190	0.2787	0.0539%	100.0000%	0.0539%
32	Joyce Boniphant*	59 East South Street Milford, Indiana 46542	20-0001243.002	6.0190	0.2787	0.0539%	100.0000%	0.0539%
32	Vickie Shepherd*	1224 Williams Drive Circleville, Ohio 43113	20-0001243.002	6.0190	0.2787	0.0539%	100.0000%	0.0539%
32	Rick Boniphant*	1224 Williams Drive Circleville, Ohio 43113	20-0001243.002	6.0190	0.2787	0.0539%	100.0000%	0.0539%
32	Jason Walvatne	4190 Ben Ficklin Road Apartment 50 San Angelo, Texas 76903	20-0001243.002	6.0190	0.2787	0.0539%	100.0000%	0.0000%

Tract Number	Mineral Owner	Address	Parcel Number	Deed Acreage	Unit Acreage	Tract Participation	AEU Unit WI	AEU Unit Participation
32	Donna Montgomery*	26990 Owl Court Tehachapi, California 93561	20-0001243.002	6.0190	0.2787	0.0539%	100.0000%	0.0539%
33	Edward A. & Christy A. Basham*	25022 McCoy Road Freeport, Ohio 43973	20-0001243.001	15.0090	5.003	0.9675%	100.0000%	0.9675%
33	Brenda K. Reynolds	1218 Katy Cr. NW Uniontown, Ohio 44685	20-0001243.001	15.0090	1.6677	0.3225%	100.0000%	0.0000%
33	Barbara E. Pittillo	240 Euclid Avenue Byesville, Ohio 43723	20-0001243.001	15.0090	1.6677	0.3225%	100.0000%	0.0000%
33	Donald E. Boniphant	3040 13th St. NW Canton, Ohio 44710	20-0001243.001	15.0090	1.6677	0.3225%	100.0000%	0.0000%
33	Ronald Boniphant*	312 W. Crystal Flash Road North Webster, Indiana 46542	20-0001243.001	15.0090	0.8338	0.1613%	100.0000%	0.1613%
33	Joyce Boniphant*	59 East South Street Milford, Indiana 46542	20-0001243.001	15.0090	0.8338	0.1613%	100.0000%	0.1613%
33	Vickie Shepherd*	1224 Williams Drive Circleville, Ohio 43113	20-0001243.001	15.0090	0.8338	0.1613%	100.0000%	0.1613%
33	Rick Boniphant*	1224 Williams Drive Circleville, Ohio 43113	20-0001243.001	15.0090	0.8338	0.1613%	100.0000%	0.1613%
33	Jason Walvatne	4190 Ben Ficklin Road Apartment 50 San Angelo, Texas 76903	20-0001243.001	15.0090	0.8338	0.1613%	100.0000%	0.0000%
33	Donna Montgomery*	26990 Owl Court Tehachapi, California 93561	20-0001243.001	15.0090	0.8338	0.1613%	100.0000%	0.1613%
34	Edward A. & Christy A. Basham*	25022 McCoy Road Freeport, Ohio 43973	20-0001243.005	8.2440	3.0813	0.5959%	100.0000%	0.5959%
34	Brenda K. Reynolds	1218 Katy Cr. NW Uniontown, Ohio 44685	20-0001243.005	8.2440	1.0271	0.1986%	100.0000%	0.0000%
34	Barbara E. Pittillo	240 Euclid Avenue Byesville, Ohio 43723	20-0001243.005	8.2440	1.0271	0.1986%	100.0000%	0.0000%
34	Donald E. Boniphant	3040 13th St. NW Canton, Ohio 44710	20-0001243.005	8.2440	1.0271	0.1986%	100.0000%	0.0000%

Tract Number	Mineral Owner	Address	Parcel Number	Deed Acreage	Unit Acreage	Tract Participation	AEU Unit WI	AEU Unit Participation
34	Ronald Boniphant*	312 W. Crystal Flash Road North Webster, Indiana 46542	20-0001243.005	8.2440	0.5136	0.0993%	100.0000%	0.0993%
34	Joyce Boniphant*	59 East South Street Milford, Indiana 46542	20-0001243.005	8.2440	0.5136	0.0993%	100.0000%	0.0993%
34	Vickie Shepherd*	1224 Williams Drive Circleville, Ohio 43113	20-0001243.005	8.2440	0.5136	0.0993%	100.0000%	0.0993%
34	Rick Boniphant*	1224 Williams Drive Circleville, Ohio 43113	20-0001243.005	8.2440	0.5136	0.0993%	100.0000%	0.0993%
34	Jason Walvatne	4190 Ben Ficklin Road Apartment 50 San Angelo, Texas 76903	20-0001243.005	8.2440	0.5136	0.0993%	100.0000%	0.0000%
34	Donna Montgomery*	26990 Owl Court Tehachapi, California 93561	20-0001243.005	8.2440	0.5136	0.0993%	100.0000%	0.0993%
35	Teresa & David Thurston*	69400 Pennyroyal Road Quaker City, Ohio 43773	20-0001243.004	5.0210	1.6683	0.3226%	100.0000%	0.3226%
35	Brenda K. Reynolds	1218 Katy Cr. NW Uniontown, Ohio 44685	20-0001243.004	5.0210	0.5561	0.1075%	100.0000%	0.0000%
35	Barbara E. Pittillo	240 Euclid Avenue Byesville, Ohio 43723	20-0001243.004	5.0210	0.5561	0.1075%	100.0000%	0.0000%
35	Donald E. Boniphant	3040 13th St. NW Canton, Ohio 44710	20-0001243.004	5.0210	0.5561	0.1075%	100.0000%	0.0000%
35	Ronald Boniphant*	312 W. Crystal Flash Road North Webster, Indiana 46542	20-0001243.004	5.0210	0.2781	0.0538%	100.0000%	0.0538%
35	Joyce Boniphant*	59 East South Street Milford, Indiana 46542	20-0001243.004	5.0210	0.2781	0.0538%	100.0000%	0.0538%
35	Vickie Shepherd*	1224 Williams Drive Circleville, Ohio 43113	20-0001243.004	5.0210	0.2781	0.0538%	100.0000%	0.0538%
35	Rick Boniphant*	1224 Williams Drive Circleville, Ohio 43113	20-0001243.004	5.0210	0.2781	0.0538%	100.0000%	0.0538%

Tract Number	Mineral Owner	Address	Parcel Number	Deed Acreage	Unit Acreage	Tract Participation	AEU Unit WI	AEU Unit Participation
35	Jason Walvatne	4190 Ben Ficklin Road Apartment 50 San Angelo, Texas 76903	20-0001243.004	5.0210	0.2781	0.0538%	100.0000%	0.0000%
35	Donna Montgomery*	26990 Owl Court Tehachapi, California 93561	20-0001243.004	5.0210	0.2781	0.0538%	100.0000%	0.0538%
36	Roy L. Basham, Jr. & Tiffany Basham*	25022 McCoy Road Freeport, Ohio 43973	20-0001243.003	6.0020	1.6727	0.3235%	100.0000%	0.3235%
36	Brenda K. Reynolds	1218 Katy Cr. NW Uniontown, Ohio 44685	20-0001243.003	6.0020	0.5576	0.1078%	100.0000%	0.0000%
36	Barbara E. Pittillo	240 Euclid Avenue Byesville, Ohio 43723	20-0001243.003	6.0020	0.5576	0.1078%	100.0000%	0.0000%
36	Donald E. Boniphant	3040 13th St. NW Canton, Ohio 44710	20-0001243.003	6.0020	0.5576	0.1078%	100.0000%	0.0000%
36	Ronald Boniphant*	312 W. Crystal Flash Road North Webster, Indiana 46542	20-0001243.003	6.0020	0.2788	0.0539%	100.0000%	0.0539%
36	Joyce Boniphant*	59 East South Street Milford, Indiana 46542	20-0001243.003	6.0020	0.2788	0.0539%	100.0000%	0.0539%
36	Vickie Shepherd*	1224 Williams Drive Circleville, Ohio 43113	20-0001243.003	6.0020	0.2788	0.0539%	100.0000%	0.0539%
36	Rick Boniphant*	1224 Williams Drive Circleville, Ohio 43113	20-0001243.003	6.0020	0.2788	0.0539%	100.0000%	0.0539%
36	Jason Walvatne	4190 Ben Ficklin Road Apartment 50 San Angelo, Texas 76903	20-0001243.003	6.0020	0.2788	0.0539%	100.0000%	0.0000%
36	Donna Montgomery*	26990 Owl Court Tehachapi, California 93561	20-0001243.003	6.0020	0.2788	0.0539%	100.0000%	0.0539%
				Total	119.6242	23.1343%	AEU	17.0925%

TOTAL UNIT ACRES	517.086
TOTAL CONFORMING ACRES	470.5665
ACRES AFFECTED BY NON-CONFORMING LEASES	119.6242

Exhibit A-3(b)

Exhibit "A-3(b)"

Non-Consenting Working Interest Owners to be Unitized in the Contract Area

Attached to and made a part of that certain Unit Operating Agreement for the Troyer W LND GR Unit

Tract Number	Mineral Owner	Address	Parcel Number	Deed Acreage	Unit Acreage	Tract Participation	AEU Unit WI	AEU Unit Participation	Eclipse WI	Eclipse Unit Participation	Gulfport WI	Gulfport Unit Participation
17	Frank & Kelly Ollis	68735 Pennyroyal Road Quaker City, Ohio 43773	20-0001428.000	19.7490	1.356	0.2622%	0.0000%	0.0000%	0.0000%	0.0000%	100.0000%	0.2622%
22	Kimberly J. Smith	250 Fair Avenue Quaker City, Ohio 43773	20-0001407.000	20.4830	13.92	2.6920%	0.0000%	0.0000%	0.0000%	0.0000%	100.0000%	2.6920%
Total					15.276	2.6920%	AEU	0.0000%	Eclipse	0.0000%	Gulfport	2.6920%

TOTAL UNIT ACRES	517.086
TOTAL CONFORMING ACRES	470.5665
TOTAL NONCONFORMING ACRES TO BE UNITIZED	31.2435
TOTAL NON-CONSENTING WORKING INTEREST OWNER ACRES TO BE UNITIZED	15.276

End of Exhibit "A-3(b)"

Exhibit B

Exhibit "B"

PAID-UP
OIL & GAS LEASE

Lease No. _____

This Lease made this _____ day of _____, 201_, by and between:

_____ whose address is _____ hereinafter collectively called "Lessor," and **American Energy – Utica, LLC** an **Oklahoma Limited Liability Company**, whose address is **P.O. Box 18756, Oklahoma City, OK 73154**, hereinafter called "Lessee."

WITNESSETH, that for and in consideration of Ten Dollars (\$10.00) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and of the mutual covenants and agreements hereinafter set forth, the Lessor and Lessee agree as follows:

LEASING CLAUSE. Lessor hereby leases exclusively to Lessee all the oil and gas (including, but not limited to coal seam gas, coalbed methane gas, coalbed gas, methane gas, gob gas, occluded methane/natural gas and all associated natural gas and other hydrocarbons and non-hydrocarbons contained in, associated with, emitting from, or produced/originating within any formation, gob area, mined-out area, coal seam, and all communicating zones), and their liquid or gaseous constituents, whether hydrocarbon or non-hydrocarbon, underlying the land herein leased, together with such exclusive rights as may be necessary or convenient for Lessee, at its election, to explore for, develop, produce, measure, and market production from the Leasehold, or from other lands, using methods and techniques which are not restricted to current technology, including, without limitation, the right to conduct geophysical and other exploratory tests; to drill, maintain, operate, cease to operate, plug, abandon, and remove wells; to use or install roads over and across the Leasehold for use in development of the Leasehold or other lands, electric power and telephone facilities, water impoundments, and to construct pipelines with appurtenant facilities, including data acquisition, compression and collection facilities for use in the production and transportation of products from the Leasehold or from other lands across the Leasehold, to use oil, gas, and non-domestic water sources, free of cost, to store gas of any kind underground, regardless of the source thereof, including the injecting of gas therein and removing the same therefrom; to protect stored gas; to operate, maintain, repair, and remove material and equipment; to use and occupy the subsurface of the Leasehold for the drilling of a wellbore(s) for use in development of the Leasehold or other lands.

DESCRIPTION. The Leasehold is located in the Township of _____, in the County of _____, in the State of **Ohio**, and described as follows:

Township: _____; Range: _____; Section _____; Tax Parcel No.: _____, Containing _____ acres

and described for the purposes of this agreement as containing a total of _____ Leasehold acres, whether actually more or less, and including contiguous lands owned by Lessor. This Lease also covers and includes, in addition to that above described, all land, if any, contiguous or adjacent to or adjoining the land above described and (a) owned or claimed by Lessor, by limitation, prescription, possession, reversion or unrecorded instrument or (b) as to which Lessor has a preference right of acquisition. Lessor agrees to execute any supplemental instrument requested by Lessee for a more complete or accurate description of said land.

LEASE TERM. This Lease shall remain in force for a primary term of **Five (5)** years from 12:00 A.M. _____ (effective date) to 11:59 P.M. _____ (last day of primary term) and shall continue beyond the primary term as to the entirety of the Leasehold if any of the following is satisfied: (i) operations are conducted on the Leasehold or lands pooled/unitized therewith in search of oil, gas, or their constituents, or (ii) a well deemed by Lessee to be capable of production is located on the Leasehold or lands pooled/unitized therewith, or (iii) oil or gas, or their constituents, are produced from the Leasehold or lands pooled/unitized therewith, or (iv) if the Leasehold or lands pooled/unitized therewith is used for the underground storage of gas, or for the protection of stored gas, or (v) if prescribed payments are made, or (vi) if Lessee's operations are delayed, postponed or interrupted as a result of any coal, stone or other mining or mining related operation under any existing and effective lease, permit or authorization covering such operations on the leased premises or on other lands affecting the leased premises, such delay will automatically extend the primary or secondary term of this oil and gas lease without additional compensation or performance by Lessee for a period of time equal to any such delay, postponement or interruption.

If there is any dispute concerning the extension of this Lease beyond the primary term by reason of any of the alternative mechanisms specified herein, the payment to the Lessor of the prescribed payments provided below shall be conclusive evidence that the Lease has been extended beyond the primary term.

EXTENSION OF PRIMARY TERM. Lessee has the option to extend the primary term of this Lease for one additional term of **Five (5)** years from the expiration of the primary term of this Lease; said extension to be under the same terms and conditions as contained in this Lease. Lessee may exercise this option to extend this Lease if on or before the expiration date of the primary term of this Lease, Lessee pays or tenders to the Lessor or to the Lessor's credit an amount equal to the initial consideration given for the execution hereof. Exercise of this option is

at Lessee's sole discretion and may be invoked by Lessee where no other alternative of the Lease Term clause extends this Lease beyond the primary term.

NO AUTOMATIC TERMINATION OR FORFEITURE.

(A) **CONSTRUCTION OF LEASE:** The language of this Lease (including, but not limited to, the Lease Term and Extension of Term clauses) shall never be read as language of special limitation. This Lease shall be construed against termination, forfeiture, cancellation or expiration and in favor of giving effect to the continuation of this Lease where the circumstances exist to maintain this Lease in effect under any of the alternative mechanisms set forth above. In connection therewith, (i) a well shall be deemed to be capable of production if it has the capacity to produce a profit over operating costs, without regard to any capital costs to drill or equip the well, or to deliver the oil or gas to market, and (ii) the Lessee shall be deemed to be conducting operations in search of oil or gas, or their constituents, if the Lessee is engaged in geophysical and other exploratory work including, but not limited to, activities to drill an initial well, to drill a new well, or to rework, stimulate, deepen, sidetrack, frac, plug back in the same or different formation or repair a well or equipment on the Leasehold or any lands pooled/unitized therewith (such activities shall include, but not be limited to, performing any preliminary or preparatory work necessary for drilling, conducting internal technical analysis to initiate and/or further develop a well, obtaining permits and approvals associated therewith and may include reasonable gaps in activities provided that there is a continuum of activities showing a good faith effort to develop a well or that the cessation or interruption of activities was beyond the control of Lessee, including interruptions caused by the acts of third parties over whom Lessee has no control or regulatory delays associated with any approval process required for conducting such activities).

(B) **LIMITATION OF FORFEITURE:** This Lease shall never be subject to a civil action or proceeding to enforce a claim of termination, cancellation, expiration or forfeiture due to any action or inaction by the Lessee, including, but not limited to making any prescribed payments authorized under the terms of this Lease, unless the Lessee has received written notice of Lessor's demand and thereafter fails or refuses to satisfy or provide justification responding to Lessor's demand within 60 days from the receipt of such notice. If Lessee timely responds to Lessor's demand, but in good faith disagrees with Lessor's position and sets forth the reasons therefore, such a response shall be deemed to satisfy this provision, this Lease shall continue in full force and effect and no further damages (or other claims for relief) will accrue in Lessor's favor during the pendency of the dispute, other than claims for payments that may be due under the terms of this Lease.

PAYMENTS TO LESSOR. In addition to the bonus paid by Lessee for the execution hereof, Lessee covenants to pay Lessor, proportionate to Lessor's percentage of ownership, as follows:

(A) **DELAY RENTAL:** To pay Lessor as Delay Rental, after the first year, at the rate of five dollars (\$5.00) per net acre per year payable in advance. **The parties hereto agree that this is a Paid-Up Lease with no further Delay Rental and/or Delay in Marketing payments due to Lessor during the primary term hereof.**

(B) **ROYALTY:** For all oil and gas substances that are produced and sold from the lease premises, Lessor shall receive as its royalty _____ (%) percent of the sales proceeds actually received by Lessee from the sale of such production, less this same percentage share of all post production costs, as defined below, and less this same percentage share of all production, severance and ad valorem taxes. As used in this provision, post production costs shall mean (i) all losses of produced volumes (whether by use as fuel, line loss, flaring, venting or otherwise) and (ii) all costs actually incurred by Lessee from and after the wellhead to the point of sale, including, without limitation, all gathering, dehydration, compression, treatment, processing, marketing and transportation costs incurred in connection with the sale of such production. For royalty calculation purposes, Lessee shall never be required to adjust the sales proceeds to account for the purchaser's costs or charges downstream from the point of sale. Lessee may withhold Royalty payment until such time as the total withheld exceeds fifty dollars (\$50.00).

(C) **DELAY IN MARKETING:** In the event that Lessee drills a well on the Leasehold or lands pooled/unitized therewith that is awaiting completion (including, without limitation, hydraulic fracture stimulation), or that Lessee deems to be capable of production, but does not market producible gas, oil, or their constituents therefrom and there is no other basis for extending this Lease, Lessee shall pay after the primary term and until such time as marketing is established (or Lessee surrenders the Lease) a Delay in Marketing payment equal in amount and frequency to the annual Delay Rental payment, and this Lease shall remain in full force and effect to the same extent as payment of Royalty.

(D) **SHUT-IN:** In the event that production of oil, gas, or their constituents is interrupted and not marketed for a period of twelve (12) months, and there is no producing well on the Leasehold or lands pooled/unitized therewith, Lessee shall, after the primary term, as Royalty for constructive production, pay a Shut-in Royalty equal in amount and frequency to the annual Delay Rental payment until such time as production is re-established (or Lessee surrenders the Lease) and this Lease shall remain in full force and effect. During Shut-in, Lessee shall have the right to rework, stimulate, or deepen any well on the Leasehold or to drill a new well on the Leasehold in an effort to re-establish production, whether from an original producing formation or from a different formation. In the event that the production from the only producing well on the Leasehold is interrupted for a period of less than twelve (12) months, this Lease shall remain in full force and effect without payment of Royalty or Shut-in Royalty.

(E) **DAMAGES:** Lessee will remove unnecessary equipment and materials and reclaim all disturbed lands at the completion of activities, and Lessee agrees to repair any damaged improvements to the land and pay for the loss of growing crops or marketable timber.

(F) **MANNER OF PAYMENT:** Lessee shall make or tender all payments due hereunder by check, payable to Lessor, at Lessor's last known address, and Lessee may withhold any payment pending notification by Lessor of a change in address. Payment may be tendered by mail or any comparable method (e.g., Federal Express), and payment is deemed complete upon mailing or dispatch. Where the due date for any payment specified herein falls on a holiday, Saturday or Sunday, payment tendered (mailed or dispatched) on the next business day is timely.

(G) **CHANGE IN LAND OWNERSHIP:** Lessee shall not be bound by any change in the ownership of the Leasehold until furnished with such documentation as Lessee may reasonably require. Pending the receipt of documentation, Lessee may elect either to continue to make or withhold payments as if such a change had not occurred.

(H) TITLE: If Lessee receives evidence that Lessor does not have title to all or any part of the rights herein leased, Lessee may immediately withhold payments that would be otherwise due and payable hereunder to Lessor until the adverse claim is fully resolved. Lessor represents and warrants that there is no existing oil and gas lease which is presently in effect covering the Leasehold.

(I) LIENS: Lessee may at its option pay and discharge any past due taxes, mortgages, judgments, or other liens and encumbrances on or against any land or interest included in the Leasehold; and Lessee shall be entitled to recover from the debtor, with legal interest and costs, by deduction from any future payments to Lessor or by any other lawful means. In the event the leased lands are encumbered by a prior mortgage, then, notwithstanding anything contained herein to the contrary, Lessee shall have the right to suspend the payment of any royalties due hereunder, without liability for interest, until such time as Lessor obtains at its own expense a subordination of the mortgage in a form acceptable to Lessee.

(J) CHARACTERIZATION OF PAYMENTS: Payments set forth herein are covenants, not special limitations, regardless of the manner in which these payments may be invoked. Any failure on the part of the Lessee to timely or otherwise properly tender payment can never result in an automatic termination, expiration, cancellation, or forfeiture of this Lease. Lessor recognizes and acknowledges that oil and gas lease payments, in the form of rental, bonus and royalty, can vary depending on multiple factors and that this Lease is the product of good faith negotiations. Lessor hereby agrees that the payment terms, as set forth herein, and any bonus payments paid to Lessor constitute full consideration for the Leasehold. Lessor further agrees that such payment terms and bonus payments are final and that Lessor will not seek to amend or modify the lease payments, or seek additional consideration based upon any differing terms which Lessee has or will negotiate with any other lessor/oil and gas owner.

(K) PAYMENT REDUCTIONS: If Lessor owns a lesser interest in the oil or gas than the entire undivided fee simple estate, then the rentals (except for Delay Rental payments as set forth above), royalties and shut-in royalties hereunder shall be paid to Lessor only in the proportion which Lessor's interest bears to the whole and undivided fee.

UNITIZATION AND POOLING. Lessor grants Lessee the right to pool, unitize, or combine all or parts of the Leasehold with other lands, whether contiguous or not contiguous, leased or unleased, whether owned by Lessee or by others, at a time before or after drilling to create drilling or production units either by contract right or pursuant to governmental authorization. Pooling or unitizing in one or more instances shall not exhaust Lessee's pooling and unitizing rights hereunder, and Lessee is granted the right to change the size, shape, and conditions of operation or payment of any unit created. Lessor agrees to accept and receive out of the production or the revenue realized from the production of such unit, such proportional share of the Royalty from each unit well as the number of Leasehold acres included in the unit bears to the total number of acres in the unit. Otherwise, as to any part of the unit, drilling, operations in preparation for drilling, production, or shut-in production from the unit, or payment of Royalty, Shut-in Royalty, Delay in Marketing payment or Delay Rental attributable to any part of the unit (including non-Leasehold land) shall have the same effect upon the terms of this Lease as if a well were located on, or the subject activity attributable to, the Leasehold. In the event of conflict or inconsistency between the Leasehold acres ascribed to the Lease, and the local property tax assessment calculation of the lands covered by the Lease, or the deeded acreage amount, Lessee may, at its option, rely on the latter as being determinative for the purposes of this paragraph.

FACILITIES. Lessee shall not drill a well on the Leasehold within 200 feet of any structure located on the Leasehold without Lessor's written consent. Lessor shall not erect any building or structure, or plant any trees within 200 feet of a well or within 25 feet of a pipeline without Lessee's written consent. Lessor shall not improve, modify, degrade, or restrict roads and facilities built by Lessee without Lessee's written consent.

CONVERSION TO STORAGE. Lessee is hereby granted the right to convert the Leasehold or lands pooled/unitized therewith to gas storage. At the time of conversion, Lessee shall pay Lessor's proportionate part for the estimated recoverable gas remaining in any well drilled pursuant to this Lease using methods of calculating gas reserves as are generally accepted by the natural gas industry and, in the event that all wells on the Leasehold and/or lands pooled/unitized therewith have permanently ceased production, Lessor shall be paid a Conversion to Storage payment in an amount equal to Delay Rental for as long thereafter as the Leasehold or lands pooled/unitized therewith is/are used for gas storage or for protection of gas storage; such Conversion to Storage payment shall first become due upon the next ensuing Delay Rental anniversary date. The use of any part of the Leasehold or lands pooled or unitized therewith for the underground storage of gas, or for the protection of stored gas will extend this Lease beyond the primary term as to all rights granted by this Lease, including but not limited to production rights, regardless of whether the production and storage rights are owned together or separately.

DISPOSAL AND INJECTION WELLS. Lessor hereby grants to Lessee the right to drill wells and/or re-enter existing wells, including necessary location, roadway and pipeline easements and rights of way, on any part of the Leasehold or lands pooled or unitized therewith for the disposal and/or injection into any subsurface strata, other than a potable water strata, of air, gas, brine, completion and production fluids, waste water and any hydrocarbon related substances from any source, including, but not limited to wells on the Leasehold or lands pooled or unitized therewith or from properties and lands outside the Leasehold or lands pooled or unitized therewith, and to conduct all operations as may be required, for so long as necessary and required by Lessee for purposes as herein provided. If, at the expiration of the primary term, Lessee is disposing and/or injecting into any subsurface strata underlying the Leasehold or lands pooled or unitized therewith or conducting operations for such disposal and/or injection and this lease is not being maintained by any other provision contained herein and no other payments are being made to Lessor as prescribed hereunder, Lessee shall pay to Lessor the sum of one thousand dollars (\$1,000.00) per year, proportionately reduced to Lessor's ownership in the Leasehold and surface as it bears to the full and undivided estate, beginning on the next anniversary date of this Lease and said payment and term of this Lease, insofar as to terms and provisions contained herein applicable to disposal and injection wells, shall continue annually thereafter for so long as necessary and required by Lessee for purposes as herein provided and until all disposal and/or injection wells located on the Leasehold or on lands pooled or unitized therewith are plugged and abandoned. Lessor

agrees that if required by Lessee, regulatory agency or governmental authority having jurisdiction, Lessor shall enter a separate Disposal and Injection Agreement with Lessee for the purposes as herein provided.

TITLE AND INTERESTS. Lessor hereby warrants generally and agrees to defend title to the Leasehold and covenants that Lessee shall have quiet enjoyment hereunder and shall have benefit of the doctrine of after acquired title. Should any person having title to the Leasehold fail to execute this Lease, the Lease shall nevertheless be binding upon all persons who do execute it as Lessor.

LEASE DEVELOPMENT. There is no implied covenant to drill, prevent drainage, further develop or market production within the primary term or any extension of term of this Lease. There shall be no Leasehold forfeiture, termination, expiration or cancellation for failure to comply with said implied covenants. Provisions herein, including, but not limited to the prescribed payments, constitute full compensation for the privileges herein granted.

COVENANTS. This Lease and its expressed or implied covenants shall not be subject to termination, forfeiture of rights, or damages due to failure to comply with obligations if compliance is effectively prevented by federal, state, or local law, regulation, or decree, or the acts of God and/or third parties over whom Lessee has no control.

RIGHT OF FIRST REFUSAL. If at any time within the primary term of this Lease or any continuation or extension thereof, Lessor receives any bona fide offer, acceptable to Lessor, to grant an additional lease which will take effect upon expiration of this Lease ("Top Lease") covering all or part of the Leasehold, Lessee shall have the continuing option by meeting any such offer to acquire a Top Lease on equivalent terms and conditions. Any offer must be in writing and must set forth the proposed Lessee's name, bonus consideration and royalty consideration to be paid for such Top Lease, and include a copy of the lease form to be utilized reflecting all pertinent and relevant terms and conditions of the Top Lease. Lessee shall have fifteen (15) days after receipt from Lessor of a complete copy of any such offer to advise Lessor in writing of its election to enter into an oil and gas lease with Lessor on equivalent terms and conditions. If Lessee fails to notify Lessor within the aforesaid fifteen (15) day period of its election to meet any such bona fide offer, Lessor shall have the right to accept said offer. Any Top Lease granted by Lessor in violation of this provision shall be null and void.

ARBITRATION. In the event of a disagreement between Lessor and Lessee concerning this Lease or the associated Order of Payment, performance thereunder, or damages caused by Lessee's operations, the resolution of all such disputes shall be determined by arbitration in accordance with the rules of the American Arbitration Association. Arbitration shall be the exclusive remedy and cover all disputes, including but not limited to, the formation, execution, validity and performance of the Lease and Order of Payment. All fees and costs associated with the arbitration shall be borne equally by Lessor and Lessee.

ENTIRE CONTRACT. The entire agreement between Lessor and Lessee is embodied herein and in the associated Order of Payment (if any). No oral warranties, representations, or promises have been made or relied upon by either party as an inducement to or modification of this Lease.

TITLE CURATIVE. Lessor agrees to execute consents, affidavits, ratifications, amendments, permits and other instruments as Lessee may request to carry out the purpose of this lease, including without limitation, applications necessary to obtain driveway entrance permits, and approvals of drilling or production units which Lessee may seek to form pursuant to governmental authorization.

SURRENDER. Lessee, at any time, and from time to time, may surrender and cancel this Lease as to all or any part of the Leasehold by recording a Surrender of Lease and thereupon this Lease, and the rights and obligations of the parties hereunder, shall terminate as to the part so surrendered; provided, however, that upon each surrender as to any part of the Leasehold, Lessee shall have reasonable and convenient easements for then existing wells, pipelines, pole lines, roadways and other facilities on the lands surrendered.

SUCCESSORS. All rights, duties, and liabilities herein benefit and bind Lessor and Lessee and their heirs, successors, and assigns.

FORCE MAJEURE. All express or implied covenants of this Lease shall be subject to all applicable laws, rules, regulations and orders. When drilling, reworking, production or other operations hereunder, or Lessee's fulfillment of its obligations hereunder are prevented or delayed by such laws, rules, regulations or orders, or by inability to obtain necessary permits, equipment, services, material, water, electricity, fuel, access or easements, or by fire, flood, adverse weather conditions, war, sabotage, rebellion, insurrection, riot, strike or labor disputes, other Acts of God, or by inability to obtain a satisfactory market for production or failure of purchasers or carriers to take or transport such production, or by any other cause not reasonably within Lessee's control, this Lease shall not terminate, in whole or in part, because of such prevention or delay, and, at Lessee's option, the period of such prevention or delay shall be added to the term hereof. Lessee shall not be liable in damages for breach of any express or implied covenants of this Lease for failure to comply therewith, if compliance is prevented by, or failure is the result of any applicable laws, rules, regulations or orders or operation of force majeure. If this Lease is the subject matter of any lawsuit, arbitration proceeding, or other action, then this Lease shall not expire during the pendency of such lawsuit, arbitration proceeding, or other action, or any appeal thereof, and the period of the lawsuit, arbitration proceeding, or other action, and any appeal thereof, shall be added to the term of this Lease.

SEVERABILITY. This Lease is intended to comply with all applicable laws, rules, regulations, ordinances and governmental orders. If any provision of this Lease is held by a court of competent jurisdiction to be invalid, void, or unenforceable, the remaining provisions shall survive and continue in full force and effect to the maximum extent allowed by law. If a court of competent jurisdiction holds any provision of this Lease invalid, void, or unenforceable under applicable law, the court shall give the provision the greatest effect possible under the law and modify the provision so as to conform to applicable law if that can be done in a manner which does not frustrate the purpose of this Lease.

COUNTERPARTS. This Lease may be executed in one or more counterparts, each of which will be deemed to be an original copy of this Lease and all of which, when taken together, will be deemed to constitute one and the same agreement.

Exhibit C



Exhibit "C -" ACCOUNTING PROCEDURE JOINT OPERATIONS

1 Attached to and made part of ~~that certain Joint Operating Agreement dated~~ May 24, 2014 by and between
2 ~~American Energy – Utica, LLC as Operator, and Gulfport Energy Corporation~~ as Non-Operators
3
4
5

I. GENERAL PROVISIONS

8 IF THE PARTIES FAIL TO SELECT EITHER ONE OF COMPETING "ALTERNATIVE" PROVISIONS, OR SELECT ALL THE
9 COMPETING "ALTERNATIVE" PROVISIONS, ALTERNATIVE 1 IN EACH SUCH INSTANCE SHALL BE DEEMED TO HAVE
10 BEEN ADOPTED BY THE PARTIES AS A RESULT OF ANY SUCH OMISSION OR DUPLICATE NOTATION.
11

12 IN THE EVENT THAT ANY "OPTIONAL" PROVISION OF THIS ACCOUNTING PROCEDURE IS NOT ADOPTED BY THE
13 PARTIES TO THE AGREEMENT BY A TYPED, PRINTED OR HANDWRITTEN INDICATION, SUCH PROVISION SHALL NOT
14 FORM A PART OF THIS ACCOUNTING PROCEDURE, AND NO INFERENCE SHALL BE MADE CONCERNING THE INTENT
15 OF THE PARTIES IN SUCH EVENT.
16

1. DEFINITIONS

17 All terms used in this Accounting Procedure shall have the following meaning, unless otherwise expressly defined in the Agreement:
18

19
20
21 **"Affiliate"** means for a person, another person that controls, is controlled by, or is under common control with that person. In this
22 definition, (a) control means the ownership by one person, directly or indirectly, of more than fifty percent (50%) of the voting securities
23 of a corporation or, for other persons, the equivalent ownership interest (such as partnership interests), and (b) "person" means an
24 individual, corporation, partnership, trust, estate, unincorporated organization, association, or other legal entity.
25

26 **"Agreement"** means the operating agreement, farmout agreement, or other contract between the Parties to which this Accounting
27 Procedure is attached.
28

29 **"Controllable Material"** means Material that, at the time of acquisition or disposition by the Joint Account, as applicable, is so classified
30 in the Material Classification Manual most recently recommended by the Council of Petroleum Accountants Societies (COPAS).
31

32 **"Equalized Freight"** means the procedure of charging transportation cost to the Joint Account based upon the distance from the nearest
33 Railway Receiving Point to the property.
34

35 **"Excluded Amount"** means a specified excluded trucking amount most recently recommended by COPAS.
36

37 **"Field Office"** means a structure, or portion of a structure, whether a temporary or permanent installation, the primary function of which is
38 to directly serve daily operation and maintenance activities of the Joint Property and which serves as a staging area for directly chargeable
39 field personnel.
40

41 **"First Level Supervision"** means those employees whose primary function in Joint Operations is the direct oversight of the Operator's
42 field employees and/or contract labor directly employed On-site in a field operating capacity. First Level Supervision functions may
43 include, but are not limited to:
44

- 45 • Responsibility for field employees and contract labor engaged in activities that can include field operations, maintenance,
46 construction, well remedial work, equipment movement and drilling
- 47 • Responsibility for day-to-day direct oversight of rig operations
- 48 • Responsibility for day-to-day direct oversight of construction operations
- 49 • Coordination of job priorities and approval of work procedures
- 50 • Responsibility for optimal resource utilization (equipment, Materials, personnel)
- 51 • Responsibility for meeting production and field operating expense targets
- 52 • Representation of the Parties in local matters involving community, vendors, regulatory agents and landowners, as an incidental
53 part of the supervisor's operating responsibilities
- 54 • Responsibility for all emergency responses with field staff
- 55 • Responsibility for implementing safety and environmental practices
- 56 • Responsibility for field adherence to company policy
- 57 • Responsibility for employment decisions and performance appraisals for field personnel
- 58 • Oversight of sub-groups for field functions such as electrical, safety, environmental, telecommunications, which may have group
59 or team leaders.
60

61 **"Joint Account"** means the account showing the charges paid and credits received in the conduct of the Joint Operations that are to be
62 shared by the Parties, but does not include proceeds attributable to hydrocarbons and by-products produced under the Agreement.
63

64 **"Joint Operations"** means all operations necessary or proper for the exploration, appraisal, development, production, protection,
65 maintenance, repair, abandonment, and restoration of the Joint Property.
66

1 **“Joint Property”** means the real and personal property subject to the Agreement.

2
3 **“Laws”** means any laws, rules, regulations, decrees, and orders of the United States of America or any state thereof and all other
4 governmental bodies, agencies, and other authorities having jurisdiction over or affecting the provisions contained in or the transactions
5 contemplated by the Agreement or the Parties and their operations, whether such laws now exist or are hereafter amended, enacted,
6 promulgated or issued.

7
8 **“Material”** means personal property, equipment, supplies, or consumables acquired or held for use by the Joint Property.

9
10 **“Non-Operators”** means the Parties to the Agreement other than the Operator.

11
12 **“Offshore Facilities”** means platforms, surface and subsea development and production systems, and other support systems such as oil and
13 gas handling facilities, living quarters, offices, shops, cranes, electrical supply equipment and systems, fuel and water storage and piping,
14 heliport, marine docking installations, communication facilities, navigation aids, and other similar facilities necessary in the conduct of
15 offshore operations, all of which are located offshore.

16
17 **“Off-site”** means any location that is not considered On-site as defined in this Accounting Procedure.

18
19 **“On-site”** means on the Joint Property when in direct conduct of Joint Operations. The term “On-site” shall also include that portion of
20 Offshore Facilities, Shore Base Facilities, fabrication yards, and staging areas from which Joint Operations are conducted, or other
21 facilities that directly control equipment on the Joint Property, regardless of whether such facilities are owned by the Joint Account.

22
23 **“Operator”** means the Party designated pursuant to the Agreement to conduct the Joint Operations.

24
25 **“Parties”** means legal entities signatory to the Agreement or their successors and assigns. Parties shall be referred to individually as
26 “Party.”

27
28 **“Participating Interest”** means the percentage of the costs and risks of conducting an operation under the Agreement that a Party agrees,
29 or is otherwise obligated, to pay and bear.

30
31 **“Participating Party”** means a Party that approves a proposed operation or otherwise agrees, or becomes liable, to pay and bear a share of
32 the costs and risks of conducting an operation under the Agreement.

33
34 **“Personal Expenses”** means reimbursed costs for travel and temporary living expenses.

35
36 **“Railway Receiving Point”** means the railhead nearest the Joint Property for which freight rates are published, even though an actual
37 railhead may not exist.

38
39 **“Shore Base Facilities”** means onshore support facilities that during Joint Operations provide such services to the Joint Property as a
40 receiving and transshipment point for Materials; debarkation point for drilling and production personnel and services; communication,
41 scheduling and dispatching center; and other associated functions serving the Joint Property.

42
43 **“Supply Store”** means a recognized source or common stock point for a given Material item.

44
45 **“Technical Services”** means services providing specific engineering, geoscience, or other professional skills, such as those performed by
46 engineers, geologists, geophysicists, and technicians, required to handle specific operating conditions and problems for the benefit of Joint
47 Operations; provided, however, Technical Services shall not include those functions specifically identified as overhead under the second
48 paragraph of the introduction of Section III (*Overhead*). Technical Services may be provided by the Operator, Operator’s Affiliate, Non-
49 Operator, Non-Operator Affiliates, and/or third parties.

50
51 **2. STATEMENTS AND BILLINGS**

52
53 The Operator shall bill Non-Operators on or before the last day of the month for their proportionate share of the Joint Account for the
54 preceding month. Such bills shall be accompanied by statements that identify the AFE (authority for expenditure), lease or facility, and all
55 charges and credits summarized by appropriate categories of investment and expense. Controllable Material shall be separately identified
56 and fully described in detail, or at the Operator’s option, Controllable Material may be summarized by major Material classifications.
57 Intangible drilling costs, audit adjustments, and unusual charges and credits shall be separately and clearly identified.

58
59 The Operator may make available to Non-Operators any statements and bills required under Section I.2 and/or Section I.3.A (*Advances*
60 *and Payments by the Parties*) via email, electronic data interchange, internet websites or other equivalent electronic media in lieu of paper
61 copies. The Operator shall provide the Non-Operators instructions and any necessary information to access and receive the statements and
62 bills within the timeframes specified herein. A statement or billing shall be deemed as delivered twenty-four (24) hours (exclusive of
63 weekends and holidays) after the Operator notifies the Non-Operator that the statement or billing is available on the website and/or sent via
64 email or electronic data interchange transmission. Each Non-Operator individually shall elect to receive statements and billings
65 electronically, if available from the Operator, or request paper copies. Such election may be changed upon thirty (30) days prior written
66 notice to the Operator.

1 **3. ADVANCES AND PAYMENTS BY THE PARTIES**

- 2
- 3 A. Unless otherwise provided for in the Agreement, the Operator may require the Non-Operators to advance their share of the estimated
- 4 cash outlay for the succeeding month's operations within fifteen (15) days after receipt of the advance request or by the first day of
- 5 the month for which the advance is required, whichever is later. The Operator shall adjust each monthly billing to reflect advances
- 6 received from the Non-Operators for such month. If a refund is due, the Operator shall apply the amount to be refunded to the
- 7 subsequent month's billing or advance, unless the Non-Operator sends the Operator a written request for a cash refund. The Operator
- 8 shall remit the refund to the Non-Operator within fifteen (15) days of receipt of such written request.
- 9
- 10 B. Except as provided below, each Party shall pay its proportionate share of all bills in full within fifteen (15) days of receipt date. If
- 11 payment is not made within such time, the unpaid balance shall bear interest compounded monthly at the prime rate published by the
- 12 *Wall Street Journal* on the first day of each month the payment is delinquent, plus three percent (3%), per annum, or the maximum
- 13 contract rate permitted by the applicable usury Laws governing the Joint Property, whichever is the lesser, plus attorney's fees, court
- 14 costs, and other costs in connection with the collection of unpaid amounts. If the *Wall Street Journal* ceases to be published or
- 15 discontinues publishing a prime rate, the unpaid balance shall bear interest compounded monthly at the prime rate published by the
- 16 Federal Reserve plus three percent (3%), per annum. Interest shall begin accruing on the first day of the month in which the payment
- 17 was due. Payment shall not be reduced or delayed as a result of inquiries or anticipated credits unless the Operator has agreed.
- 18 Notwithstanding the foregoing, the Non-Operator may reduce payment, provided it furnishes documentation and explanation to the
- 19 Operator at the time payment is made, to the extent such reduction is caused by:
- 20
- 21 (1) being billed at an incorrect working interest or Participating Interest that is higher than such Non-Operator's actual working
- 22 interest or Participating Interest, as applicable; or
- 23 (2) being billed for a project or AFE requiring approval of the Parties under the Agreement that the Non-Operator has not approved
- 24 or is not otherwise obligated to pay under the Agreement; or
- 25 (3) being billed for a property in which the Non-Operator no longer owns a working interest, provided the Non-Operator has
- 26 furnished the Operator a copy of the recorded assignment or letter in-lieu. Notwithstanding the foregoing, the Non-Operator
- 27 shall remain responsible for paying bills attributable to the interest it sold or transferred for any bills rendered during the thirty
- 28 (30) day period following the Operator's receipt of such written notice; or
- 29 (4) charges outside the adjustment period, as provided in Section I.4 (*Adjustments*).

30

31 **4. ADJUSTMENTS**

- 32
- 33 A. Payment of any such bills shall not prejudice the right of any Party to protest or question the correctness thereof; however, all bills
- 34 and statements, including payout statements, rendered during any calendar year shall conclusively be presumed to be true and correct,
- 35 with respect only to expenditures, after twenty-four (24) months following the end of any such calendar year, unless within said
- 36 period a Party takes specific detailed written exception thereto making a claim for adjustment. The Operator shall provide a response
- 37 to all written exceptions, whether or not contained in an audit report, within the time periods prescribed in Section I.5 (*Expenditure*
- 38 *Audits*).
- 39
- 40 B. All adjustments initiated by the Operator, except those described in items (1) through (4) of this Section I.4.B, are limited to the
- 41 twenty-four (24) month period following the end of the calendar year in which the original charge appeared or should have appeared
- 42 on the Operator's Joint Account statement or payout statement. Adjustments that may be made beyond the twenty-four (24) month
- 43 period are limited to adjustments resulting from the following:
- 44
- 45 (1) a physical inventory of Controllable Material as provided for in Section V (*Inventories of Controllable Material*), or
- 46 (2) an offsetting entry (whether in whole or in part) that is the direct result of a specific joint interest audit exception granted by the
- 47 Operator relating to another property, or
- 48 (3) a government/regulatory audit, or
- 49 (4) a working interest ownership or Participating Interest adjustment.

50

51 **5. EXPENDITURE AUDITS**

- 52
- 53 A. A Non-Operator, upon written notice to the Operator and all other Non-Operators, shall have the right to audit the Operator's
- 54 accounts and records relating to the Joint Account within the twenty-four (24) month period following the end of such calendar year in
- 55 which such bill was rendered; however, conducting an audit shall not extend the time for the taking of written exception to and the
- 56 adjustment of accounts as provided for in Section I.4 (*Adjustments*). Any Party that is subject to payout accounting under the
- 57 Agreement shall have the right to audit the accounts and records of the Party responsible for preparing the payout statements, or of
- 58 the Party furnishing information to the Party responsible for preparing payout statements. Audits of payout accounts may include the
- 59 volumes of hydrocarbons produced and saved and proceeds received for such hydrocarbons as they pertain to payout accounting
- 60 required under the Agreement. Unless otherwise provided in the Agreement, audits of a payout account shall be conducted within the
- 61 twenty-four (24) month period following the end of the calendar year in which the payout statement was rendered.

62

63 Where there are two or more Non-Operators, the Non-Operators shall make every reasonable effort to conduct a joint audit in a

64 manner that will result in a minimum of inconvenience to the Operator. The Operator shall bear no portion of the Non-Operators'

65 audit cost incurred under this paragraph unless agreed to by the Operator. The audits shall not be conducted more than once each year

66 without prior approval of the Operator, except upon the resignation or removal of the Operator, and shall be made at the expense of

1 those Non-Operators approving such audit.

2 The Non-Operator leading the audit (hereinafter "lead audit company") shall issue the audit report within ninety (90) days after
3 completion of the audit testing and analysis; however, the ninety (90) day time period shall not extend the twenty-four (24) month
4 requirement for taking specific detailed written exception as required in Section I.4.A (*Adjustments*) above. All claims shall be
5 supported with sufficient documentation.
6

7 A timely filed written exception or audit report containing written exceptions (hereinafter "written exceptions") shall, with respect to
8 the claims made therein, preclude the Operator from asserting a statute of limitations defense against such claims, and the Operator
9 hereby waives its right to assert any statute of limitations defense against such claims for so long as any Non-Operator continues to
10 comply with the deadlines for resolving exceptions provided in this Accounting Procedure. If the Non-Operators fail to comply with
11 the additional deadlines in Section I.5.B or I.5.C, the Operator's waiver of its rights to assert a statute of limitations defense against
12 the claims brought by the Non-Operators shall lapse, and such claims shall then be subject to the applicable statute of limitations,
13 provided that such waiver shall not lapse in the event that the Operator has failed to comply with the deadlines in Section I.5.B or
14 I.5.C.
15

16 B. The Operator shall provide a written response to all exceptions in an audit report within one hundred eighty (180) days after Operator
17 receives such report. Denied exceptions should be accompanied by a substantive response. If the Operator fails to provide substantive
18 response to an exception within this one hundred eighty (180) day period, the Operator will owe interest on that exception or portion
19 thereof, if ultimately granted, from the date it received the audit report. Interest shall be calculated using the rate set forth in Section
20 I.3.B (*Advances and Payments by the Parties*).
21

22 C. The lead audit company shall reply to the Operator's response to an audit report within ninety (90) days of receipt, and the Operator
23 shall reply to the lead audit company's follow-up response within ninety (90) days of receipt; provided, however, each Non-Operator
24 shall have the right to represent itself if it disagrees with the lead audit company's position or believes the lead audit company is not
25 adequately fulfilling its duties. Unless otherwise provided for in Section I.5.E, if the Operator fails to provide substantive response
26 to an exception within this ninety (90) day period, the Operator will owe interest on that exception or portion thereof, if ultimately
27 granted, from the date it received the audit report. Interest shall be calculated using the rate set forth in Section I.3.B (*Advances and
28 Payments by the Parties*).
29

30 D. If any Party fails to meet the deadlines in Sections I.5.B or I.5.C or if any audit issues are outstanding fifteen (15) months after
31 Operator receives the audit report, the Operator or any Non-Operator participating in the audit has the right to call a resolution
32 meeting, as set forth in this Section I.5.D or it may invoke the dispute resolution procedures included in the Agreement, if applicable.
33 The meeting will require one month's written notice to the Operator and all Non-Operators participating in the audit. The meeting
34 shall be held at the Operator's office or mutually agreed location, and shall be attended by representatives of the Parties with
35 authority to resolve such outstanding issues. Any Party who fails to attend the resolution meeting shall be bound by any resolution
36 reached at the meeting. The lead audit company will make good faith efforts to coordinate the response and positions of the
37 Non-Operator participants throughout the resolution process; however, each Non-Operator shall have the right to represent itself.
38 Attendees will make good faith efforts to resolve outstanding issues, and each Party will be required to present substantive information
39 supporting its position. A resolution meeting may be held as often as agreed to by the Parties. Issues unresolved at one meeting may
40 be discussed at subsequent meetings until each such issue is resolved.
41

42 If the Agreement contains no dispute resolution procedures and the audit issues cannot be resolved by negotiation, the dispute shall
43 be submitted to mediation. In such event, promptly following one Party's written request for mediation, the Parties to the dispute
44 shall choose a mutually acceptable mediator and share the costs of mediation services equally. The Parties shall each have present
45 at the mediation at least one individual who has the authority to settle the dispute. The Parties shall make reasonable efforts to
46 ensure that the mediation commences within sixty (60) days of the date of the mediation request. Notwithstanding the above, any
47 Party may file a lawsuit or complaint (1) if the Parties are unable after reasonable efforts, to commence mediation within sixty (60)
48 days of the date of the mediation request, (2) for statute of limitations reasons, or (3) to seek a preliminary injunction or other
49 provisional judicial relief, if in its sole judgment an injunction or other provisional relief is necessary to avoid irreparable damage or
50 to preserve the status quo. Despite such action, the Parties shall continue to try to resolve the dispute by mediation.
51

52 E. (*Optional Provision – Forfeiture Penalties*)

53 *If the Non-Operators fail to meet the deadline in Section I.5.C, any unresolved exceptions that were not addressed by the Non-*
54 *Operators within one (1) year following receipt of the last substantive response of the Operator shall be deemed to have been*
55 *withdrawn by the Non-Operators. If the Operator fails to meet the deadlines in Section I.5.B or I.5.C, any unresolved exceptions that*
56 *were not addressed by the Operator within one (1) year following receipt of the audit report or receipt of the last substantive response*
57 *of the Non-Operators, whichever is later, shall be deemed to have been granted by the Operator and adjustments shall be made,*
58 *without interest, to the Joint Account.*
59

60 6. APPROVAL BY PARTIES

61 A. GENERAL MATTERS

62 Where an approval or other agreement of the Parties or Non-Operators is expressly required under other Sections of this Accounting
63 Procedure and if the Agreement to which this Accounting Procedure is attached contains no contrary provisions in regard thereto, the
64
65
66

1 Operator shall notify all Non-Operators of the Operator's proposal and the agreement or approval of a majority in interest of the
2 Non-Operators shall be controlling on all Non-Operators.

3
4 This Section I.6.A applies to specific situations of limited duration where a Party proposes to change the accounting for charges from
5 that prescribed in this Accounting Procedure. This provision does not apply to amendments to this Accounting Procedure, which are
6 covered by Section I.6.B.

7
8 **B. AMENDMENTS**

9
10 If the Agreement to which this Accounting Procedure is attached contains no contrary provisions in regard thereto, this Accounting
11 Procedure can be amended by an affirmative vote of two (2) or more Parties, one of which is the Operator,
12 having a combined working interest of at least Fifty - One percent (51%), which approval shall be binding on all Parties,
13 provided, however, approval of at least one (1) Non-Operator shall be required.

14
15 **C. AFFILIATES**

16
17 For the purpose of administering the voting procedures of Sections I.6.A and I.6.B, if Parties to this Agreement are Affiliates of each
18 other, then such Affiliates shall be combined and treated as a single Party having the combined working interest or Participating
19 Interest of such Affiliates.

20
21 For the purposes of administering the voting procedures in Section I.6.A, if a Non-Operator is an Affiliate of the Operator, votes
22 under Section I.6.A shall require the majority in interest of the Non-Operator(s) after excluding the interest of the Operator's
23 Affiliate.

24
25 **II. DIRECT CHARGES**

26
27 The Operator shall charge the Joint Account with the following items:

28
29 **1. RENTALS AND ROYALTIES**

30
31 Lease rentals and royalties paid by the Operator, on behalf of all Parties, for the Joint Operations.

32
33 **2. LABOR**

34
35 **A. Salaries and wages, including incentive compensation programs as set forth in COPAS MFI-37 ("Chargeability of Incentive
36 Compensation Programs"), for:**

- 37
38 (1) Operator's field employees directly employed On-site in the conduct of Joint Operations,
39
40 (2) Operator's employees directly employed on Shore Base Facilities, Offshore Facilities, or other facilities serving the Joint
41 Property if such costs are not charged under Section II.6 (*Equipment and Facilities Furnished by Operator*) or are not a
42 function covered under Section III (*Overhead*),
43
44 (3) Operator's employees providing First Level Supervision,
45
46 (4) Operator's employees providing On-site Technical Services for the Joint Property if such charges are excluded from the
47 overhead rates in Section III (*Overhead*),
48
49 (5) Operator's employees providing Off-site Technical Services for the Joint Property if such charges are excluded from the
50 overhead rates in Section III (*Overhead*).

51
52 Charges for the Operator's employees identified in Section II.2.A may be made based on the employee's actual salaries and wages,
53 or in lieu thereof, a day rate representing the Operator's average salaries and wages of the employee's specific job category.

54
55 Charges for personnel chargeable under this Section II.2.A who are foreign nationals shall not exceed comparable compensation paid
56 to an equivalent U.S. employee pursuant to this Section II.2, unless otherwise approved by the Parties pursuant to Section
57 I.6.A (*General Matters*).

58
59 **B. Operator's cost of holiday, vacation, sickness, and disability benefits, and other customary allowances paid to employees whose
60 salaries and wages are chargeable to the Joint Account under Section II.2.A, excluding severance payments or other termination
61 allowances. Such costs under this Section II.2.B may be charged on a "when and as-paid basis" or by "percentage assessment" on the
62 amount of salaries and wages chargeable to the Joint Account under Section II.2.A. If percentage assessment is used, the rate shall
63 be based on the Operator's cost experience.**

64
65 **C. Expenditures or contributions made pursuant to assessments imposed by governmental authority that are applicable to costs
66 chargeable to the Joint Account under Sections II.2.A and B.**

- 1 D. Personal Expenses of personnel whose salaries and wages are chargeable to the Joint Account under Section II.2.A when the
2 expenses are incurred in connection with directly chargeable activities.
- 3
4 E. Reasonable relocation costs incurred in transferring to the Joint Property personnel whose salaries and wages are chargeable to the
5 Joint Account under Section II.2.A. Notwithstanding the foregoing, relocation costs that result from reorganization or merger of a
6 Party, or that are for the primary benefit of the Operator, shall not be chargeable to the Joint Account. Extraordinary relocation
7 costs, such as those incurred as a result of transfers from remote locations, such as Alaska or overseas, shall not be charged to the
8 Joint Account unless approved by the Parties pursuant to Section I.6.A (*General Matters*).
- 9
10 F. Training costs as specified in COPAS MFI-35 (“Charging of Training Costs to the Joint Account”) for personnel whose salaries and
11 wages are chargeable under Section II.2.A. This training charge shall include the wages, salaries, training course cost, and Personal
12 Expenses incurred during the training session. The training cost shall be charged or allocated to the property or properties directly
13 benefiting from the training. The cost of the training course shall not exceed prevailing commercial rates, where such rates are
14 available.
- 15
16 G. Operator’s current cost of established plans for employee benefits, as described in COPAS MFI-27 (“Employee Benefits Chargeable
17 to Joint Operations and Subject to Percentage Limitation”), applicable to the Operator’s labor costs chargeable to the Joint Account
18 under Sections II.2.A and B based on the Operator’s actual cost not to exceed the employee benefits limitation percentage most
19 recently recommended by COPAS.
- 20
21 H. Award payments to employees, in accordance with COPAS MFI-49 (“Awards to Employees and Contractors”) for personnel whose
22 salaries and wages are chargeable under Section II.2.A.

23
24 **3. MATERIAL**

25
26 Material purchased or furnished by the Operator for use on the Joint Property in the conduct of Joint Operations as provided under Section
27 IV (*Material Purchases, Transfers, and Dispositions*). Only such Material shall be purchased for or transferred to the Joint Property as
28 may be required for immediate use or is reasonably practical and consistent with efficient and economical operations. The accumulation
29 of surplus stocks shall be avoided.

30
31 **4. TRANSPORTATION**

- 32
33 A. Transportation of the Operator’s, Operator’s Affiliate’s, or contractor’s personnel necessary for Joint Operations.
- 34
35 B. Transportation of Material between the Joint Property and another property, or from the Operator’s warehouse or other storage point
36 to the Joint Property, shall be charged to the receiving property using one of the methods listed below. Transportation of Material
37 from the Joint Property to the Operator’s warehouse or other storage point shall be paid for by the Joint Property using one of the
38 methods listed below:
- 39
40 (1) If the actual trucking charge is less than or equal to the Excluded Amount the Operator may charge actual trucking cost or a
41 theoretical charge from the Railway Receiving Point to the Joint Property. The basis for the theoretical charge is the per
42 hundred weight charge plus fuel surcharges from the Railway Receiving Point to the Joint Property. The Operator shall
43 consistently apply the selected alternative.
- 44
45 (2) If the actual trucking charge is greater than the Excluded Amount, the Operator shall charge Equalized Freight. Accessorial
46 charges such as loading and unloading costs, split pick-up costs, detention, call out charges, and permit fees shall be charged
47 directly to the Joint Property and shall not be included when calculating the Equalized Freight.

48
49 **5. SERVICES**

50
51 The cost of contract services, equipment, and utilities used in the conduct of Joint Operations, except for contract services, equipment, and
52 utilities covered by Section III (*Overhead*), or Section II.7 (*Affiliates*), or excluded under Section II.9 (*Legal Expense*). Awards paid to
53 contractors shall be chargeable pursuant to COPAS MFI-49 (“Awards to Employees and Contractors”).

54
55 The costs of third party Technical Services are chargeable to the extent excluded from the overhead rates under Section III (*Overhead*).

56
57 **6. EQUIPMENT AND FACILITIES FURNISHED BY OPERATOR**

58
59 In the absence of a separately negotiated agreement, equipment and facilities furnished by the Operator will be charged as follows:

- 60
61 A. The Operator shall charge the Joint Account for use of Operator-owned equipment and facilities, including but not limited to
62 production facilities, Shore Base Facilities, Offshore Facilities, and Field Offices, at rates commensurate with the costs of ownership
63 and operation. The cost of Field Offices shall be chargeable to the extent the Field Offices provide direct service to personnel who
64 are chargeable pursuant to Section II.2.A (*Labor*). Such rates may include labor, maintenance, repairs, other operating expense,
65 insurance, taxes, depreciation using straight line depreciation method, and interest on gross investment less accumulated depreciation
66 not to exceed ten percent (10%) per annum; provided, however, depreciation shall not be charged when the

1 equipment and facilities investment have been fully depreciated. The rate may include an element of the estimated cost for
2 abandonment, reclamation, and dismantlement. Such rates shall not exceed the average commercial rates currently prevailing in the
3 immediate area of the Joint Property.

- 4
5 B. In lieu of charges in Section II.6.A above, the Operator may elect to use average commercial rates prevailing in the immediate area
6 of the Joint Property, less twenty percent (20%). If equipment and facilities are charged under this Section II.6.B, the Operator shall
7 adequately document and support commercial rates and shall periodically review and update the rate and the supporting
8 documentation. For automotive equipment, the Operator may elect to use rates published by the Petroleum Motor Transport
9 Association (PMTA) or such other organization recognized by COPAS as the official source of rates.

10 **7. AFFILIATES**

- 11
12 A. Charges for an Affiliate's goods and/or services used in operations requiring an AFE or other authorization from the Non-Operators
13 may be made without the approval of the Parties provided (i) the Affiliate is identified and the Affiliate goods and services are
14 specifically detailed in the approved AFE or other authorization, and (ii) the total costs for such Affiliate's goods and services billed
15 to such individual project do not exceed \$ 50,000.00 . If the total costs for an Affiliate's goods and services charged to such
16 individual project are not specifically detailed in the approved AFE or authorization or exceed such amount, charges for such
17 Affiliate shall require approval of the Parties, pursuant to Section I.6.A (*General Matters*).

- 18
19 B. For an Affiliate's goods and/or services used in operations not requiring an AFE or other authorization from the Non-Operators,
20 charges for such Affiliate's goods and services shall require approval of the Parties, pursuant to Section I.6.A (*General Matters*), if the
21 charges exceed \$ 100,000.00 in a given calendar year.

- 22
23 C. The cost of the Affiliate's goods or services shall not exceed average commercial rates prevailing in the area of the Joint Property,
24 unless the Operator obtains the Non-Operators' approval of such rates. The Operator shall adequately document and support
25 commercial rates and shall periodically review and update the rate and the supporting documentation; provided, however,
26 documentation of commercial rates shall not be required if the Operator obtains Non-Operator approval of its Affiliate's rates or
27 charges prior to billing Non-Operators for such Affiliate's goods and services. Notwithstanding the foregoing, direct charges for
28 Affiliate-owned communication facilities or systems shall be made pursuant to Section II.12 (*Communications*).

29
30 If the Parties fail to designate an amount in Sections II.7.A or II.7.B, in each instance the amount deemed adopted by the Parties as a
31 result of such omission shall be the amount established as the Operator's expenditure limitation in the Agreement. If the Agreement
32 does not contain an Operator's expenditure limitation, the amount deemed adopted by the Parties as a result of such omission shall be
33 zero dollars (\$ 0.00).

34
35 **8. DAMAGES AND LOSSES TO JOINT PROPERTY**

36
37 All costs or expenses necessary for the repair or replacement of Joint Property resulting from damages or losses incurred, except to the
38 extent such damages or losses result from a Party's or Parties' gross negligence or willful misconduct, in which case such Party or Parties
39 shall be solely liable.

40
41 The Operator shall furnish the Non-Operator written notice of damages or losses incurred as soon as practicable after a report has been
42 received by the Operator.

43
44 **9. LEGAL EXPENSE**

45
46 Recording fees and costs of handling, settling, or otherwise discharging litigation, claims, and liens incurred in or resulting from
47 operations under the Agreement, or necessary to protect or recover the Joint Property, to the extent permitted under the Agreement. Costs
48 of the Operator's or Affiliate's legal staff or outside attorneys, including fees and expenses, are not chargeable unless approved by the
49 Parties pursuant to Section I.6.A (*General Matters*) or otherwise provided for in the Agreement.

50
51 Notwithstanding the foregoing paragraph, costs for procuring abstracts, fees paid to outside attorneys for title examinations (including
52 preliminary, supplemental, shut-in royalty opinions, division order title opinions), and curative work shall be chargeable to the extent
53 permitted as a direct charge in the Agreement.

54
55 **10. TAXES AND PERMITS**

56
57 All taxes and permitting fees of every kind and nature, assessed or levied upon or in connection with the Joint Property, or the production
58 therefrom, and which have been paid by the Operator for the benefit of the Parties, including penalties and interest, except to the extent the
59 penalties and interest result from the Operator's gross negligence or willful misconduct.

60
61 If ad valorem taxes paid by the Operator are based in whole or in part upon separate valuations of each Party's working interest, then
62 notwithstanding any contrary provisions, the charges to the Parties will be made in accordance with the tax value generated by each Party's
63 working interest.

1 Costs of tax consultants or advisors, the Operator's employees, or Operator's Affiliate employees in matters regarding ad valorem or other
2 tax matters, are not permitted as direct charges unless approved by the Parties pursuant to Section I.6.A (*General Matters*).

3
4 Charges to the Joint Account resulting from sales/use tax audits, including extrapolated amounts and penalties and interest, are permitted,
5 provided the Non-Operator shall be allowed to review the invoices and other underlying source documents which served as the basis for
6 tax charges and to determine that the correct amount of taxes were charged to the Joint Account. If the Non-Operator is not permitted to
7 review such documentation, the sales/use tax amount shall not be directly charged unless the Operator can conclusively document the
8 amount owed by the Joint Account.

9
10 **11. INSURANCE**

11 Net premiums paid for insurance required to be carried for Joint Operations for the protection of the Parties. If Joint Operations are
12 conducted at locations where the Operator acts as self-insurer in regard to its worker's compensation and employer's liability insurance
13 obligation, the Operator shall charge the Joint Account manual rates for the risk assumed in its self-insurance program as regulated by the
14 jurisdiction governing the Joint Property. In the case of offshore operations in federal waters, the manual rates of the adjacent state shall be
15 used for personnel performing work On-site, and such rates shall be adjusted for offshore operations by the U.S. Longshoreman and
16 Harbor Workers (USL&H) or Jones Act surcharge, as appropriate.

17
18
19 **12. COMMUNICATIONS**

20 Costs of acquiring, leasing, installing, operating, repairing, and maintaining communication facilities or systems, including satellite, radio
21 and microwave facilities, between the Joint Property and the Operator's office(s) directly responsible for field operations in accordance
22 with the provisions of COPAS MFI-44 ("Field Computer and Communication Systems"). If the communications facilities or systems
23 serving the Joint Property are Operator-owned, charges to the Joint Account shall be made as provided in Section II.6 (*Equipment and*
24 *Facilities Furnished by Operator*). If the communication facilities or systems serving the Joint Property are owned by the Operator's
25 Affiliate, charges to the Joint Account shall not exceed average commercial rates prevailing in the area of the Joint Property. The Operator
26 shall adequately document and support commercial rates and shall periodically review and update the rate and the supporting
27 documentation.

28
29
30 **13. ECOLOGICAL, ENVIRONMENTAL, AND SAFETY**

31 Costs incurred for Technical Services and drafting to comply with ecological, environmental and safety Laws or standards recommended by
32 Occupational Safety and Health Administration (OSHA) or other regulatory authorities. All other labor and functions incurred for
33 ecological, environmental and safety matters, including management, administration, and permitting, shall be covered by Sections II.2
34 (*Labor*), II.5 (*Services*), or Section III (*Overhead*), as applicable.

35
36 Costs to provide or have available pollution containment and removal equipment plus actual costs of control and cleanup and resulting
37 responsibilities of oil and other spills as well as discharges from permitted outfalls as required by applicable Laws, or other pollution
38 containment and removal equipment deemed appropriate by the Operator for prudent operations, are directly chargeable.

39
40
41 **14. ABANDONMENT AND RECLAMATION**

42 Costs incurred for abandonment and reclamation of the Joint Property, including costs required by lease agreements or by Laws.

43
44
45 **15. OTHER EXPENDITURES**

46 Any other expenditure not covered or dealt with in the foregoing provisions of this Section II (*Direct Charges*), or in Section III
47 (*Overhead*) and which is of direct benefit to the Joint Property and is incurred by the Operator in the necessary and proper conduct of the
48 Joint Operations. Charges made under this Section II.15 shall require approval of the Parties, pursuant to Section I.6.A (*General Matters*).

49
50
51 **III. OVERHEAD**

52 As compensation for costs not specifically identified as chargeable to the Joint Account pursuant to Section II (*Direct Charges*), the Operator
53 shall charge the Joint Account in accordance with this Section III.

54 Functions included in the overhead rates regardless of whether performed by the Operator, Operator's Affiliates or third parties and regardless
55 of location, shall include, but not be limited to, costs and expenses of:

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- warehousing, other than for warehouses that are jointly owned under this Agreement
 - design and drafting (except when allowed as a direct charge under Sections II.13, III.1.A(ii), and III.2, Option B)
 - inventory costs not chargeable under Section V (*Inventories of Controllable Material*)
 - procurement
 - administration
 - accounting and auditing
 - gas dispatching and gas chart integration

- human resources
- management
- supervision not directly charged under Section II.2 (*Labor*)
- legal services not directly chargeable under Section II.9 (*Legal Expense*)
- taxation, other than those costs identified as directly chargeable under Section II.10 (*Taxes and Permits*)
- preparation and monitoring of permits and certifications; preparing regulatory reports; appearances before or meetings with governmental agencies or other authorities having jurisdiction over the Joint Property, other than On-site inspections; reviewing, interpreting, or submitting comments on or lobbying with respect to Laws or proposed Laws.

Overhead charges shall include the salaries or wages plus applicable payroll burdens, benefits, and Personal Expenses of personnel performing overhead functions, as well as office and other related expenses of overhead functions.

1. OVERHEAD—DRILLING AND PRODUCING OPERATIONS

As compensation for costs incurred but not chargeable under Section II (*Direct Charges*) and not covered by other provisions of this Section III, the Operator shall charge on either:

- (Alternative 1) Fixed Rate Basis, Section III.1.B.
- (Alternative 2) Percentage Basis, Section III.1.C.

A. TECHNICAL SERVICES

- (i) Except as otherwise provided in Section II.13 (*Ecological Environmental, and Safety*) and Section III.2 (*Overhead – Major Construction and Catastrophe*), or by approval of the Parties pursuant to Section I.6.A (*General Matters*), the salaries, wages, related payroll burdens and benefits, and Personal Expenses for **On-site** Technical Services, including third party Technical Services:

- (Alternative 1 – Direct) shall be charged direct to the Joint Account.
- (Alternative 2 – Overhead) shall be covered by the overhead rates.

- (ii) Except as otherwise provided in Section II.13 (*Ecological, Environmental, and Safety*) and Section III.2 (*Overhead – Major Construction and Catastrophe*), or by approval of the Parties pursuant to Section I.6.A (*General Matters*), the salaries, wages, related payroll burdens and benefits, and Personal Expenses for **Off-site** Technical Services, including third party Technical Services:

- (Alternative 1 – All Overhead) shall be covered by the overhead rates.
- (Alternative 2 – All Direct) shall be charged direct to the Joint Account.
- (Alternative 3 – Drilling Direct) shall be charged direct to the Joint Account, only to the extent such Technical Services are directly attributable to drilling, re-drilling, deepening, or sidetracking operations, through completion, temporary abandonment, or abandonment if a dry hole. Off-site Technical Services for all other operations, including workover, recompletion, abandonment of producing wells, and the construction or expansion of fixed assets not covered by Section III.2 (*Overhead - Major Construction and Catastrophe*) shall be covered by the overhead rates.

Notwithstanding anything to the contrary in this Section III, Technical Services provided by Operator's Affiliates are subject to limitations set forth in Section II.7 (*Affiliates*). Charges for Technical personnel performing non-technical work shall not be governed by this Section III.1.A, but instead governed by other provisions of this Accounting Procedure relating to the type of work being performed.

B. OVERHEAD—FIXED RATE BASIS

- (1) The Operator shall charge the Joint Account at the following rates per well per month:

Drilling Well Rate per month \$ 13,500349.61 (prorated for less than a full month)

Producing Well Rate per month \$ 1,350334.96

- (2) Application of Overhead—Drilling Well Rate shall be as follows:

- (a) Charges for onshore drilling wells shall begin on the spud date and terminate on the date the drilling and/or completion equipment used on the well is released, whichever occurs later. Charges for offshore and inland waters drilling wells shall begin on the date the drilling or completion equipment arrives on location and terminate on the date the drilling or completion equipment moves off location, or is released, whichever occurs first. No charge shall be made during suspension of drilling and/or completion operations for fifteen (15) or more consecutive calendar days.

(b) Charges for any well undergoing any type of workover, recompletion, and/or abandonment for a period of five (5) or more consecutive work-days shall be made at the Drilling Well Rate. Such charges shall be applied for the period from date operations, with rig or other units used in operations, commence through date of rig or other unit release, except that no charges shall be made during suspension of operations for fifteen (15) or more consecutive calendar days.

(3) Application of Overhead—Producing Well Rate shall be as follows:

(a) An active well that is produced, injected into for recovery or disposal, or used to obtain water supply to support operations for any portion of the month shall be considered as a one-well charge for the entire month.

(b) Each active completion in a multi-completed well shall be considered as a one-well charge provided each completion is considered a separate well by the governing regulatory authority.

(c) A one-well charge shall be made for the month in which plugging and abandonment operations are completed on any well, unless the Drilling Well Rate applies, as provided in Sections III.1.B.(2)(a) or (b). This one-well charge shall be made whether or not the well has produced.

(d) An active gas well shut in because of overproduction or failure of a purchaser, processor, or transporter to take production shall be considered as a one-well charge provided the gas well is directly connected to a permanent sales outlet.

(e) Any well not meeting the criteria set forth in Sections III.1.B.(3) (a), (b), (c), or (d) shall not qualify for a producing overhead charge.

(4) The well rates shall be adjusted on the first day of April each year following the effective date of the Agreement; provided, however, if this Accounting Procedure is attached to or otherwise governing the payout accounting under a farmout agreement, the rates shall be adjusted on the first day of April each year following the effective date of such farmout agreement. The adjustment shall be computed by applying the adjustment factor most recently published by COPAS. The adjusted rates shall be the initial or amended rates agreed to by the Parties increased or decreased by the adjustment factor described herein, for each year from the effective date of such rates, in accordance with COPAS MFI-47 (“Adjustment of Overhead Rates”).

~~C. —OVERHEAD— PERCENTAGE BASIS~~

~~(1) —Operator shall charge the Joint Account at the following rates:~~

~~(a) —Development Rate _____ percent (_____) % of the cost of development of the Joint Property, exclusive of costs provided under Section II.9 (Legal Expense) and all Material salvage credits.~~

~~(b) —Operating Rate _____ percent (_____) % of the cost of operating the Joint Property, exclusive of costs provided under Sections II.1 (Rentals and Royalties) and II.9 (Legal Expense); all Material salvage credits; the value of substances purchased for enhanced recovery; all property and ad valorem taxes, and any other taxes and assessments that are levied, assessed, and paid upon the mineral interest in and to the Joint Property.~~

~~(2) —Application of Overhead— Percentage Basis shall be as follows:~~

~~(a) —The Development Rate shall be applied to all costs in connection with:~~

- ~~[i] —drilling, redrilling, sidetracking, or deepening of a well~~
- ~~[ii] —a well undergoing plugback or workover operations for a period of five (5) or more consecutive work-days~~
- ~~[iii] —preliminary expenditures necessary in preparation for drilling~~
- ~~[iv] —expenditures incurred in abandoning when the well is not completed as a producer~~
- ~~[v] —construction or installation of fixed assets, the expansion of fixed assets and any other project clearly discernible as a fixed asset, other than Major Construction or Catastrophe as defined in Section III.2 (Overhead Major Construction and Catastrophe).~~

~~(b) —The Operating Rate shall be applied to all other costs in connection with Joint Operations, except those subject to Section III.2 (Overhead Major Construction and Catastrophe).~~

2. OVERHEAD—MAJOR CONSTRUCTION AND CATASTROPHE

To compensate the Operator for overhead costs incurred in connection with a Major Construction project or Catastrophe, the Operator shall either negotiate a rate prior to the beginning of the project, or shall charge the Joint Account for overhead based on the following rates for any Major Construction project in excess of the Operator’s expenditure limit under the Agreement, or for any Catastrophe regardless of the amount. If the Agreement to which this Accounting Procedure is attached does not contain an expenditure limit, Major Construction Overhead shall be assessed for any single Major Construction project costing in excess of \$100,000 gross.

1 Major Construction shall mean the construction and installation of fixed assets, the expansion of fixed assets, and any other project clearly
2 discernible as a fixed asset required for the development and operation of the Joint Property, or in the dismantlement, abandonment,
3 removal, and restoration of platforms, production equipment, and other operating facilities.

4 Catastrophe is defined as a sudden calamitous event bringing damage, loss, or destruction to property or the environment, such as an oil
5 spill, blowout, explosion, fire, storm, hurricane, or other disaster. The overhead rate shall be applied to those costs necessary to restore the
6 Joint Property to the equivalent condition that existed prior to the event.

7
8 A. If the Operator absorbs the engineering, design and drafting costs related to the project:

- 9
10 (1) 5 % of total costs if such costs are less than \$100,000; plus
11
12 (2) 3 % of total costs in excess of \$100,000 but less than \$1,000,000; plus
13
14 (3) 2 % of total costs in excess of \$1,000,000.
15

16 B. If the Operator charges engineering, design and drafting costs related to the project directly to the Joint Account:

- 17
18 (1) 5 % of total costs if such costs are less than \$100,000; plus
19
20 (2) 3 % of total costs in excess of \$100,000 but less than \$1,000,000; plus
21
22 (3) 2 % of total costs in excess of \$1,000,000.
23

24 Total cost shall mean the gross cost of any one project. For the purpose of this paragraph, the component parts of a single Major
25 Construction project shall not be treated separately, and the cost of drilling and workover wells and purchasing and installing pumping
26 units and downhole artificial lift equipment shall be excluded. For Catastrophes, the rates shall be applied to all costs associated with each
27 single occurrence or event.

28
29 On each project, the Operator shall advise the Non-Operator(s) in advance which of the above options shall apply.

30
31 For the purposes of calculating Catastrophe Overhead, the cost of drilling relief wells, substitute wells, or conducting other well operations
32 directly resulting from the catastrophic event shall be included. Expenditures to which these rates apply shall not be reduced by salvage or
33 insurance recoveries. Expenditures that qualify for Major Construction or Catastrophe Overhead shall not qualify for overhead under any
34 other overhead provisions.

35
36 In the event of any conflict between the provisions of this Section III.2 and the provisions of Sections II.2 (*Labor*), II.5 (*Services*), or II.7
37 (*Affiliates*), the provisions of this Section III.2 shall govern.

38 39 3. AMENDMENT OF OVERHEAD RATES

40
41 The overhead rates provided for in this Section III may be amended from time to time if, in practice, the rates are found to be insufficient
42 or excessive, in accordance with the provisions of Section I.6.B (*Amendments*).

43 44 45 IV. MATERIAL PURCHASES, TRANSFERS, AND DISPOSITIONS

46
47 The Operator is responsible for Joint Account Material and shall make proper and timely charges and credits for direct purchases, transfers, and
48 dispositions. The Operator shall provide all Material for use in the conduct of Joint Operations; however, Material may be supplied by the Non-
49 Operators, at the Operator's option. Material furnished by any Party shall be furnished without any express or implied warranties as to quality,
50 fitness for use, or any other matter.

51 52 1. DIRECT PURCHASES

53
54 Direct purchases shall be charged to the Joint Account at the price paid by the Operator after deduction of all discounts received. The
55 Operator shall make good faith efforts to take discounts offered by suppliers, but shall not be liable for failure to take discounts except to
56 the extent such failure was the result of the Operator's gross negligence or willful misconduct. A direct purchase shall be deemed to occur
57 when an agreement is made between an Operator and a third party for the acquisition of Material for a specific well site or location.
58 Material provided by the Operator under "vendor stocking programs," where the initial use is for a Joint Property and title of the Material
59 does not pass from the manufacturer, distributor, or agent until usage, is considered a direct purchase. If Material is found to be defective
60 or is returned to the manufacturer, distributor, or agent for any other reason, credit shall be passed to the Joint Account within sixty (60)
61 days after the Operator has received adjustment from the manufacturer, distributor, or agent.
62
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64
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66

1 **2. TRANSFERS**

2 A transfer is determined to occur when the Operator (i) furnishes Material from a storage facility or from another operated property, (ii) has
3 assumed liability for the storage costs and changes in value, and (iii) has previously secured and held title to the transferred Material.
4 Similarly, the removal of Material from the Joint Property to a storage facility or to another operated property is also considered a transfer;
5 provided, however, Material that is moved from the Joint Property to a storage location for safe-keeping pending disposition may remain
6 charged to the Joint Account and is not considered a transfer. Material shall be disposed of in accordance with Section IV.3 (*Disposition of*
7 *Surplus*) and the Agreement to which this Accounting Procedure is attached.
8

9 **A. PRICING**

10 The value of Material transferred to/from the Joint Property should generally reflect the market value on the date of physical transfer.
11 Regardless of the pricing method used, the Operator shall make available to the Non-Operators sufficient documentation to verify the
12 Material valuation. When higher than specification grade or size tubulars are used in the conduct of Joint Operations, the Operator
13 shall charge the Joint Account at the equivalent price for well design specification tubulars, unless such higher specification grade or
14 sized tubulars are approved by the Parties pursuant to Section I.6.A (*General Matters*). Transfers of new Material will be priced
15 using one of the following pricing methods; provided, however, the Operator shall use consistent pricing methods, and not alternate
16 between methods for the purpose of choosing the method most favorable to the Operator for a specific transfer:
17

- 18
- 19 (1) Using published prices in effect on date of movement as adjusted by the appropriate COPAS Historical Price Multiplier (HPM)
20 or prices provided by the COPAS Computerized Equipment Pricing System (CEPS).
21
 - 22 (a) For oil country tubulars and line pipe, the published price shall be based upon eastern mill carload base prices (Houston,
23 Texas, for special end) adjusted as of date of movement, plus transportation cost as defined in Section IV.2.B (*Freight*).
 - 24 (b) For other Material, the published price shall be the published list price in effect at date of movement, as listed by a Supply
25 Store nearest the Joint Property where like Material is normally available, or point of manufacture plus transportation
26 costs as defined in Section IV.2.B (*Freight*).
 - 27 (2) Based on a price quotation from a vendor that reflects a current realistic acquisition cost.
 - 28 (3) Based on the amount paid by the Operator for like Material in the vicinity of the Joint Property within the previous twelve (12)
29 months from the date of physical transfer.
 - 30 (4) As agreed to by the Participating Parties for Material being transferred to the Joint Property, and by the Parties owning the
31 Material for Material being transferred from the Joint Property.

32 **B. FREIGHT**

33 Transportation costs shall be added to the Material transfer price using the method prescribed by the COPAS Computerized
34 Equipment Pricing System (CEPS). If not using CEPS, transportation costs shall be calculated as follows:
35

- 36
- 37 (1) Transportation costs for oil country tubulars and line pipe shall be calculated using the distance from eastern mill to the
38 Railway Receiving Point based on the carload weight basis as recommended by the COPAS MFI-38 ("Material Pricing
39 Manual") and other COPAS MFIs in effect at the time of the transfer.
 - 40 (2) Transportation costs for special mill items shall be calculated from that mill's shipping point to the Railway Receiving Point.
41 For transportation costs from other than eastern mills, the 30,000-pound interstate truck rate shall be used. Transportation costs
42 for macaroni tubing shall be calculated based on the interstate truck rate per weight of tubing transferred to the Railway
43 Receiving Point.
 - 44 (3) Transportation costs for special end tubular goods shall be calculated using the interstate truck rate from Houston, Texas, to the
45 Railway Receiving Point.
 - 46 (4) Transportation costs for Material other than that described in Sections IV.2.B.(1) through (3), shall be calculated from the
47 Supply Store or point of manufacture, whichever is appropriate, to the Railway Receiving Point
48

49 Regardless of whether using CEPS or manually calculating transportation costs, transportation costs from the Railway Receiving Point
50 to the Joint Property are in addition to the foregoing, and may be charged to the Joint Account based on actual costs incurred. All
51 transportation costs are subject to Equalized Freight as provided in Section II.4 (*Transportation*) of this Accounting Procedure.
52

53 **C. TAXES**

54 Sales and use taxes shall be added to the Material transfer price using either the method contained in the COPAS Computerized
55 Equipment Pricing System (CEPS) or the applicable tax rate in effect for the Joint Property at the time and place of transfer. In either
56 case, the Joint Account shall be charged or credited at the rate that would have governed had the Material been a direct purchase.
57

1 D. CONDITION

2
3 (1) Condition "A" – New and unused Material in sound and serviceable condition shall be charged at one hundred percent (100%)
4 of the price as determined in Sections IV.2.A (*Pricing*), IV.2.B (*Freight*), and IV.2.C (*Taxes*). Material transferred from the
5 Joint Property that was not placed in service shall be credited as charged without gain or loss; provided, however, any unused
6 Material that was charged to the Joint Account through a direct purchase will be credited to the Joint Account at the original
7 cost paid less restocking fees charged by the vendor. New and unused Material transferred from the Joint Property may be
8 credited at a price other than the price originally charged to the Joint Account provided such price is approved by the Parties
9 owning such Material, pursuant to Section I.6.A (*General Matters*). All refurbishing costs required or necessary to return the
10 Material to original condition or to correct handling, transportation, or other damages will be borne by the divesting property.
11 The Joint Account is responsible for Material preparation, handling, and transportation costs for new and unused Material
12 charged to the Joint Property either through a direct purchase or transfer. Any preparation costs incurred, including any internal
13 or external coating and wrapping, will be credited on new Material provided these services were not repeated for such Material
14 for the receiving property.

15
16 (2) Condition "B" – Used Material in sound and serviceable condition and suitable for reuse without reconditioning shall be priced
17 by multiplying the price determined in Sections IV.2.A (*Pricing*), IV.2.B (*Freight*), and IV.2.C (*Taxes*) by seventy-five percent
18 (75%).

19 Except as provided in Section IV.2.D(3), all reconditioning costs required to return the Material to Condition "B" or to correct
20 handling, transportation or other damages will be borne by the divesting property.

21
22 If the Material was originally charged to the Joint Account as used Material and placed in service for the Joint Property, the
23 Material will be credited at the price determined in Sections IV.2.A (*Pricing*), IV.2.B (*Freight*), and IV.2.C (*Taxes*) multiplied
24 by sixty-five percent (65%).

25
26 Unless otherwise agreed to by the Parties that paid for such Material, used Material transferred from the Joint Property that was
27 not placed in service on the property shall be credited as charged without gain or loss.

28
29 (3) Condition "C" – Material that is not in sound and serviceable condition and not suitable for its original function until after
30 reconditioning shall be priced by multiplying the price determined in Sections IV.2.A (*Pricing*), IV.2.B (*Freight*), and IV.2.C
31 (*Taxes*) by fifty percent (50%).

32
33 The cost of reconditioning may be charged to the receiving property to the extent Condition "C" value, plus cost of
34 reconditioning, does not exceed Condition "B" value.

35
36 (4) Condition "D" – Material that (i) is no longer suitable for its original purpose but useable for some other purpose, (ii) is
37 obsolete, or (iii) does not meet original specifications but still has value and can be used in other applications as a substitute for
38 items with different specifications, is considered Condition "D" Material. Casing, tubing, or drill pipe used as line pipe shall be
39 priced as Grade A and B seamless line pipe of comparable size and weight. Used casing, tubing, or drill pipe utilized as line
40 pipe shall be priced at used line pipe prices. Casing, tubing, or drill pipe used as higher pressure service lines than standard line
41 pipe, e.g., power oil lines, shall be priced under normal pricing procedures for casing, tubing, or drill pipe. Upset tubular goods
42 shall be priced on a non-upset basis. For other items, the price used should result in the Joint Account being charged or credited
43 with the value of the service rendered or use of the Material, or as agreed to by the Parties pursuant to Section 1.6.A (*General*
44 *Matters*).

45
46 (5) Condition "E" – Junk shall be priced at prevailing scrap value prices.

47
48 E. OTHER PRICING PROVISIONS

49 (1) Preparation Costs

50
51 Subject to Section II (*Direct Charges*) and Section III (*Overhead*) of this Accounting Procedure, costs incurred by the Operator
52 in making Material serviceable including inspection, third party surveillance services, and other similar services will be charged
53 to the Joint Account at prices which reflect the Operator's actual costs of the services. Documentation must be provided to the
54 Non-Operators upon request to support the cost of service. New coating and/or wrapping shall be considered a component of
55 the Materials and priced in accordance with Sections IV.1 (*Direct Purchases*) or IV.2.A (*Pricing*), as applicable. No charges or
56 credits shall be made for used coating or wrapping. Charges and credits for inspections shall be made in accordance with
57 COPAS MFI-38 ("Material Pricing Manual").

58
59 (2) Loading and Unloading Costs

60
61 Loading and unloading costs related to the movement of the Material to the Joint Property shall be charged in accordance with
62 the methods specified in COPAS MFI-38 ("Material Pricing Manual").
63
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66

1 **3. DISPOSITION OF SURPLUS**

2 Surplus Material is that Material, whether new or used, that is no longer required for Joint Operations. The Operator may purchase, but
3 shall be under no obligation to purchase, the interest of the Non-Operators in surplus Material.
4

5 Dispositions for the purpose of this procedure are considered to be the relinquishment of title of the Material from the Joint Property to
6 either a third party, a Non-Operator, or to the Operator. To avoid the accumulation of surplus Material, the Operator should make good
7 faith efforts to dispose of surplus within twelve (12) months through buy/sale agreements, trade, sale to a third party, division in kind, or
8 other dispositions as agreed to by the Parties.
9

10 Disposal of surplus Materials shall be made in accordance with the terms of the Agreement to which this Accounting Procedure is
11 attached. If the Agreement contains no provisions governing disposal of surplus Material, the following terms shall apply:
12

- 13 • The Operator may, through a sale to an unrelated third party or entity, dispose of surplus Material having a gross sale value that
14 is less than or equal to the Operator's expenditure limit as set forth in the Agreement to which this Accounting Procedure is
15 attached without the prior approval of the Parties owning such Material.
16
- 17 • If the gross sale value exceeds the Agreement expenditure limit, the disposal must be agreed to by the Parties owning such
18 Material.
19
- 20 • Operator may purchase surplus Condition "A" or "B" Material without approval of the Parties owning such Material, based on
21 the pricing methods set forth in Section IV.2 (*Transfers*).
22
- 23 • Operator may purchase Condition "C" Material without prior approval of the Parties owning such Material if the value of the
24 Materials, based on the pricing methods set forth in Section IV.2 (*Transfers*), is less than or equal to the Operator's expenditure
25 limitation set forth in the Agreement. The Operator shall provide documentation supporting the classification of the Material as
26 Condition C.
27
- 28 • Operator may dispose of Condition "D" or "E" Material under procedures normally utilized by Operator without prior approval
29 of the Parties owning such Material.
30

31 **4. SPECIAL PRICING PROVISIONS**

32 **A. PREMIUM PRICING**

33 Whenever Material is available only at inflated prices due to national emergencies, strikes, government imposed foreign trade
34 restrictions, or other unusual causes over which the Operator has no control, for direct purchase the Operator may charge the Joint
35 Account for the required Material at the Operator's actual cost incurred in providing such Material, making it suitable for use, and
36 moving it to the Joint Property. Material transferred or disposed of during premium pricing situations shall be valued in accordance
37 with Section IV.2 (*Transfers*) or Section IV.3 (*Disposition of Surplus*), as applicable.
38

39 **B. SHOP-MADE ITEMS**

40 Items fabricated by the Operator's employees, or by contract laborers under the direction of the Operator, shall be priced using the
41 value of the Material used to construct the item plus the cost of labor to fabricate the item. If the Material is from the Operator's
42 scrap or junk account, the Material shall be priced at either twenty-five percent (25%) of the current price as determined in Section
43 IV.2.A (*Pricing*) or scrap value, whichever is higher. In no event shall the amount charged exceed the value of the item
44 commensurate with its use.
45

46 **C. MILL REJECTS**

47 Mill rejects purchased as "limited service" casing or tubing shall be priced at eighty percent (80%) of K-55/J-55 price as determined in
48 Section IV.2 (*Transfers*). Line pipe converted to casing or tubing with casing or tubing couplings attached shall be priced as K-55/J-
49 55 casing or tubing at the nearest size and weight.
50

51 **V. INVENTORIES OF CONTROLLABLE MATERIAL**

52 The Operator shall maintain records of Controllable Material charged to the Joint Account, with sufficient detail to perform physical inventories.
53

54 Adjustments to the Joint Account by the Operator resulting from a physical inventory of Controllable Material shall be made within twelve (12)
55 months following the taking of the inventory or receipt of Non-Operator inventory report. Charges and credits for overages or shortages will be
56 valued for the Joint Account in accordance with Section IV.2 (*Transfers*) and shall be based on the Condition "B" prices in effect on the date of
57 physical inventory unless the inventorying Parties can provide sufficient evidence another Material condition applies.
58

1 **1. DIRECTED INVENTORIES**

2
3 Physical inventories shall be performed by the Operator upon written request of a majority in working interests of the Non-Operators
4 (hereinafter, "directed inventory"); provided, however, the Operator shall not be required to perform directed inventories more frequently
5 than once every five (5) years. Directed inventories shall be commenced within one hundred eighty (180) days after the Operator receives
6 written notice that a majority in interest of the Non-Operators has requested the inventory. All Parties shall be governed by the results of
7 any directed inventory.

8
9 Expenses of directed inventories will be borne by the Joint Account; provided, however, costs associated with any post-report follow-up
10 work in settling the inventory will be absorbed by the Party incurring such costs. The Operator is expected to exercise judgment in keeping
11 expenses within reasonable limits. Any anticipated disproportionate or extraordinary costs should be discussed and agreed upon prior to
12 commencement of the inventory. Expenses of directed inventories may include the following:

- 13
14 A. A per diem rate for each inventory person, representative of actual salaries, wages, and payroll burdens and benefits of the personnel
15 performing the inventory or a rate agreed to by the Parties pursuant to Section I.6.A (*General Matters*). The per diem rate shall also
16 be applied to a reasonable number of days for pre-inventory work and report preparation.
- 17
18 B. Actual transportation costs and Personal Expenses for the inventory team.
- 19
20 C. Reasonable charges for report preparation and distribution to the Non-Operators.

21 **2. NON-DIRECTED INVENTORIES**

22 A. **OPERATOR INVENTORIES**

23
24 Physical inventories that are not requested by the Non-Operators may be performed by the Operator, at the Operator's discretion. The
25 expenses of conducting such Operator-initiated inventories shall not be charged to the Joint Account.

26
27 B. **NON-OPERATOR INVENTORIES**

28
29 Subject to the terms of the Agreement to which this Accounting Procedure is attached, the Non-Operators may conduct a physical
30 inventory at reasonable times at their sole cost and risk after giving the Operator at least ninety (90) days prior written notice. The
31 Non-Operator inventory report shall be furnished to the Operator in writing within ninety (90) days of completing the inventory
32 fieldwork.

33
34 C. **SPECIAL INVENTORIES**

35
36 The expense of conducting inventories other than those described in Sections V.1 (*Directed Inventories*), V.2.A (*Operator*
37 *Inventories*), or V.2.B (*Non-Operator Inventories*), shall be charged to the Party requesting such inventory; provided, however,
38 inventories required due to a change of Operator shall be charged to the Joint Account in the same manner as described in Section
39 V.1 (*Directed Inventories*).

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Exhibit D

EXHIBIT "D"

Attached to and made a part of that certain Operating Agreement for the Troyer W LND GR Unit.

1. Operator shall procure and maintain, at all times while conducting operations under this Agreement, the following insurance coverages with limits not less than those specified below:

A. Workers' Compensation Employer's Liability	Statutory \$1,000,000 Each Accident
B. General Liability including bodily injury and property damage liability	\$5,000,000 Combined Single Limit
C. Auto Liability	\$1,000,000 Combined Single Limit
D. Excess or Umbrella Liability	\$20,000,000 Combined Single Limit
E. Cost of Well Control and Care, Custody and Control	\$5,000,000 Each Occurrence and \$250,000 CCC
F. Pollution Liability	\$20,000,000 Combined Single Limit

2. The insurance described in 1. above shall include Non-Operator as additional insured (except Workers' Compensation) and shall include a waiver by the insurer of all rights of subrogation in favor of Non-Operator. Such insurance shall be carried at the joint expense of the parties hereto and all premiums and other costs and expenses related thereto shall be charged to the Joint Account in accordance with the Accounting Procedure attached as Exhibit "C" to this Agreement, unless prior to spud a party hereto who desires to provide its own insurance or self-insurance provides Operator with a certificate of insurance evidencing such individual coverage.

3. Operator shall endeavor to have its contractors and subcontractors comply with applicable Workers' Compensation laws, rules and regulations and carry such insurance as Operator may deem necessary.

4. Operator shall not be liable to Non-Operator for loss suffered because of insufficiency of the insurance procured and maintained for the Joint Account nor shall Operator be liable to Non-Operator for any loss occurring by reason of Operator's inability to procure or maintain the insurance provided for herein. If, in Operator's opinion, at any time during the term of this Agreement, Operator is unable to procure or maintain said insurance on commercially reasonable terms, or Operator reduces the limits of insurance, Operator shall promptly so notify Non-Operator in writing.

5. In the event of loss not covered by the insurance provided for herein, such loss shall be charged to the Joint Account and borne by the parties in accordance with their respective percentage of participation as determined by this Agreement.

6. Any party hereto may individually and at its own expense procure such additional insurance as it desires; provided, however, such party shall provide Operator with a certificate of insurance evidencing such coverage before spud of the well and such coverage shall include a waiver by the insurer of all rights of subrogation in favor of the parties hereto.

END OF EXHIBIT "D"

Exhibit E

EXHIBIT "E"

Attached to and made a part of that certain Operating Agreement dated _____, _____, by and between American Energy – Utica, LLC as Operator, and _____, _____, as Non-Operator.

Gas Balancing Agreement

I. DEFINITIONS:

For the purposes of this Gas Balancing Agreement ("GBA") the following terms shall be defined as follows:

(a) "Affiliate" shall have the meaning ascribed to such term in the Operating Agreement.

(b) The "Allowable" is the maximum rate of Gas production from each Gas Well permitted from time to time by the regulatory authority having jurisdiction.

(c) "Balance" is the condition occurring when a party has utilized, sold or disposed of a Quantity of Gas equal to the same percentage of the cumulative Gas production as such party's Percentage Ownership during the period of such cumulative Gas production.

(d) "Deliverability" shall mean the maximum sustainable daily Gas withdrawal from a Gas Well which may be accomplished without detriment to ultimate recovery of reserves as determined by Operator acting in good faith and taking into account relevant operational factors including, but not limited to, pipeline capacity and pressure and the maximum producing capability of the Gas Well based on data reported to the appropriate governmental agency having jurisdiction.

(e) "Gas" shall mean all gaseous hydrocarbons produced from each Gas Well but shall not include liquid hydrocarbons.

(f) "Gas Well" shall mean each well subject to the Operating Agreement that produces gas. If a single Gas Well is completed in two or more reservoirs, such Gas Well will be considered a separate Gas Well with respect to, but only as to, each reservoir from which the Gas production is not commingled in the well bore.

(g) "MMBtu" shall mean one million British thermal units.

(h) "Operating Agreement" means the operating agreement between the Parties to which this GBA is attached.

(i) "Operator" means the Party designated as operator under the Operating Agreement.

(j) "Overproduced" is the condition occurring when a party has utilized, disposed of or sold a greater Quantity of Gas from a particular Gas Well at any given time (individually or through its gas purchaser) than if such party were in Balance.

(k) "Parties" means the legal entities that are signatory to the Operating Agreement, or their successors and assigns. Parties shall be referred to individually as a party.

(l) "Percentage Ownership" is the percentage interest of each party in each Gas Well as set forth in or determined in accordance with the provisions of the Operating Agreement, as such interest may change from time to time.

(m) "Percentage of Proceeds Sale" means a sale of Gas processed in a gas processing plant the price for which is computed as a percentage of the proceeds from the resale of residue gas and natural gas liquids attributable to such Gas.

(n) "Quantity" shall mean the number of units of Gas expressed in MMBtus.

(o) "Underproduced" is the condition occurring when a party has utilized, disposed of or sold a lesser Quantity of Gas from a particular Well at any given time (individually or through its gas purchaser) than if such party were in Balance.

II. APPLICATION OF THIS AGREEMENT

The provisions of this GBA shall be separately applicable to each Gas Well to the end that Gas production from one Gas Well may not be utilized for the purposes of balancing underproduction of Gas from any other Gas Well.

III. OVERPRODUCTION

A. Right to Take All Gas Produced

Subject to the other provisions herein, during any period when any party hereto is not marketing or otherwise disposing of or utilizing its Percentage Ownership of the Allowable or Deliverability, as applicable, of Gas from any Gas Well, the other parties shall be entitled--but shall not have the obligation--to take, in addition to their own Percentage Ownership of Gas, that portion of such other party's Percentage Ownership of Gas which said party is not marketing, utilizing or otherwise disposing of, and shall be entitled to take such Gas production and deliver same to its or their purchasers in accordance with the provisions herein. Each such taking party shall have the right to take its pro rata portion of each such non-taking party's share, said pro rata portion being based on the ratio of its Percentage Ownership to the Percentage Ownership of all parties in the same balancing status (either Overproduced or Underproduced) who elect to take such non-taking party's share of gas; provided, however, an Underproduced party desiring to take a non-taking party's share of Gas shall take precedence over an Overproduced party which wishes to take such non-taking party's Gas, and an Overproduced party shall be entitled to take a non-taking party's share of Gas only to the extent that an Underproduced party has elected not to take said Gas. The Gas of a party not taking its production shall be allocated to a taking party hereunder prior to calculation of percentage entitlement to make up Gas from an Overproduced party under Article IV, below.

Notwithstanding the foregoing, all parties shall share in and own the liquid hydrocarbons recovered from Gas by primary separation equipment in accordance with their respective Percentage Ownership, which liquid hydrocarbon ownership shall be unaffected by this GBA. One or more parties may arrange to have their Gas processed in a gas processing plant for the recovery of liquefiable hydrocarbons. Nothing in this GBA shall afford a basis for balancing any liquefiable hydrocarbons recovered from a Gas processing plant. Each party taking Gas shall own all of the Gas delivered to its purchaser.

B. Limitation on Overproduced Party's Right to Take Gas

Notwithstanding the provisions of Article III.A., above, if during any time and from time to time an Overproduced party shall have taken more than one hundred percent (100%) of such party's Percentage Ownership share of the estimated ultimate recoverable reserves for a Gas Well as determined by Operator acting in good faith, said Overproduced party shall not, after receipt of written notice of said fact from Operator, be entitled to take, sell or otherwise dispose of Gas from such Gas Well until such time as said party is no longer Overproduced; provided, however, said Overproduced party may take Gas from such Gas Well without restriction if and for so long as the other parties are not taking Gas from such Gas Well their full share of the Gas or as otherwise authorized by all of the Underproduced parties. Also, no Overproduced party shall at any time be entitled to take, sell or otherwise dispose of more than 300% of its Percentage Ownership of the Allowable from a Gas Well or, if there is no Allowable established, of the Deliverability of a Gas Well.

C. Credit For Gas in Storage

Each party who markets less than its Percentage Ownership of the Gas produced shall be credited with Gas in storage equal to its Percentage Ownership share of the Gas produced, less the Gas actually marketed and taken by said party, and less such Party's Percentage Ownership share of the Gas, vented, used or lost in lease operations.

IV. RIGHT OF UNDERPRODUCED PARTY TO MAKE UP PRODUCTION

Any Underproduced party may commence making up its underproduction provided it has given written notice to the Operator not later than the fifth day of the month preceding the month in which it wishes to commence making up its underproduction, or within such other time as Operator may from time to time reasonably establish.

In addition to its Percentage Ownership and its rights to a non-taking party's Gas under Article III, above, each Underproduced party will be entitled to take up to an additional twenty-five percent (25%) of the monthly Quantity of each Overproduced party's Percentage Ownership in Gas produced during any month; provided, however, nothing in this Article IV shall reduce the right of any Overproduced party to take a Quantity of Gas available for sale during any month less than seventy-five percent (75%) of its Percentage Ownership in Gas produced in said month.

If at any time more than one Underproduced party is taking a Quantity of Gas in excess of its Percentage Ownership in Gas production in order to balance its Gas production account ("Makeup"), then each such Underproduced party shall be entitled to take such Makeup in proportion that its Percentage Ownership bears to the total Percentage Ownership of all Underproduced parties desiring to take Makeup from the Well. Any portion of the Makeup to which an Underproduced party is entitled and which is not taken by such Underproduced party may be taken by any other Underproduced party in the proportion that its Percentage Ownership bears to the total Percentage Ownership of all Underproduced parties desiring to take such untaken portion of Makeup.

V. MONTHLY DATA AND STATEMENTS TO BE PROVIDED

The Operator will establish and maintain a current Gas account which shows the Gas balance which exists for all the parties and will furnish each of these parties a monthly statement showing the total Quantity of Gas sold and taken in kind and the current and cumulative over and under account of each party within ninety (90) days following the end of each applicable month. Operator shall not incur any liability to any party for errors in the data provided by each party or third parties or for other matters pertaining to gas balancing statements (e.g., transporter's allocation of Gas). Each party shall be responsible for promptly providing written notification to Operator of any error(s) or inaccuracy(ies) contained in any gas balancing statement which it receives.

VI. PAYMENT OF ROYALTIES AND PRODUCTION TAXES

At all times while Gas is produced from a Well, each party hereto will make, or cause to be made, settlement with respective royalty owners to whom each is accountable in accordance with the actual volumes of Gas taken by such party. Upon written request from any party, any other party shall provide on a monthly basis, any additional information which such requesting party may require in order to comply with its obligation to pay royalty pursuant to the terms hereof including, without limitation, name, address, decimal interest, tax identification and, to the extent it has same, title opinions and abstracts of ownership. The term "royalty owner" includes owners of royalty, overriding royalties, production payments and similar interests. Each party agrees to indemnify and hold harmless each other party from any and all claims asserted by its royalty owners and its Gas Purchasers for which said indemnifying party is responsible. Each party producing and/or delivering Gas to its purchaser shall pay, or cause to be paid, any and all production, severance and other similar taxes due on such Gas in accordance with the actual volumes of Gas taken by such party.

VII. CASH SETTLEMENTS

A. Events Occasioning Cash Settlements

A cash settlement of any imbalance of Gas production: (i) shall be made when production from a Gas Well permanently ceases or the Operating Agreement otherwise terminates (each being referred to herein as "Termination"); and (ii) shall be made by an Overproduced party at the request and option of any Underproduced party or parties upon the sale, transfer, assignment, mortgage or other disposition to an unaffiliated entity (herein individually or collectively referred to as a "Transfer"), by an Overproduced party of all or any portion of its Percentage Ownership in any Gas Well unless (x) the Transfer documentation clearly provides that the assignee has expressly assumed the gas balance position of, and the liability for gas imbalances from, the assignor, and (y) the assignee is not a known credit risk and the assignor has provided to the other parties evidence of the creditworthiness of assignee prior to the date that the applicable Transfer becomes effective taking into account the potential liability associated with the applicable gas imbalance. (A cash settlement pursuant to clause (ii) above may hereinafter be referred to as an "Optional Cash Settlement".) The parties acknowledge that a cash settlement may be made on more than one occasion pursuant to the terms of this GBA.

B. Notification of Proposed Transfer By Overproduced Party

When an Overproduced party elects to Transfer all or a portion of its Percentage Ownership (except to an Affiliate, or where the liability for prior period gas imbalances is assumed by an assignee), it shall give notice to all other parties to the Operating Agreement of its intended Transfer and the anticipated closing date. Each Underproduced party shall have fifteen (15) days from the receipt of such notice in which to elect to receive a cash settlement from the transferring party for the transferring party's share of overproduction allocable to the Underproduced party. Such election shall be made in writing and sent to the transferring party and Operator. An Underproduced party's election not to request a cash settlement at the time of Transfer by an Overproduced party shall not, subject to the provisions of Article VII.E, below, preclude said Underproduced party from sharing in cash settlement at Termination or from requesting a cash settlement upon subsequent Transfer by an Overproduced party.

C. Quantity of Gas

Within one hundred twenty (120) days after Termination, Operator shall provide a statement captioned "Final Quantity Statement" showing on a party-by-party basis the net unrecovered underproduction, the overproduction and the months and years in which such underproduction and overproduction occurred. Quantities of Gas for which settlement is due shall be determined by accruing the monthly overproduction and underproduction in the order of accrual of said overproduction and underproduction; i.e. makeup Quantities taken by an Underproduced party shall be applied against the oldest overproduction and underproduction then outstanding. In the event an Optional Cash Settlement is requested, Operator shall provide to the parties, within fifteen business days, an Interim Quantity Statement through the end of the last quarter for which Operator has production data, which shall contain similar information as would be contained within a Final Quantity Statement.

D. Pricing

1. For Overproduction Sold

The amount to be paid by an Overproduced party to an Underproduced party for such Underproduced party's Gas upon cash settlement shall, where the Overproduced party has sold the Gas to an unaffiliated third party, be based upon the price received by the Overproduced party at the time such overproduction occurred (the "price received") shall be the gross proceeds received, less the following:

- (a) production and/or severance taxes attributable to said Gas production paid by the Overproduced party;
- (b) royalties, if any, paid by the Overproduced party to an Underproduced party's royalty owner(s) to the extent said payments amounted to a discharge of said Underproduced party's royalty obligation;
- (c) any other payments made by the Overproduced party to obligees of the Underproduced party to the extent said payments by the Overproduced party were required by law and/or amounted to discharge of the obligations of the Underproduced party; and
- (d) all reasonable costs and expenses incurred to third parties in connection with the sale of said Gas; e.g., gathering, transportation, compression, storage, marketing and similar fees.

In the event sales by the Overproduced party were made to an Affiliate and the price paid by such Affiliate was less than the prevailing market price in the area of the Well at the time of the sale, then the price received shall be deemed to be the Dominion Transmission Inc. South Point Index price found inside the Federal Energy Regulatory Commission's Gas Market Report for the applicable month of overproduction, calculated from a pricing bulletin published at the time such overproduction occurred, less those items set forth in a-d above (the "Adjusted South Point Index Price"). Any Underproduced party that is entitled to payment with respect to the applicable cash settlement may, based upon competent evidence, object that sales by the Overproduced party to an Affiliate were at a price less than the prevailing market price in the area of the Well at the time of the sale, in which case the Adjusted South Point Index Price shall be used to price such sales in accordance with the prior sentence.

2. For Overproduction Taken or Utilized and Not Sold

If there is no actual sale to establish the amount received by the Overproduced party because the Overproduced party took such Gas for its own purposes instead of selling it, the amount to be paid by an Overproduced party to an Underproduced party for such Underproduced party's Gas upon cash settlement shall be based upon the Adjusted South Point Index Price.

3. Proceeds for Liquefiable Hydrocarbons Not Included

The parties agree that the terms "price received by an Overproduced party" and "weighted average price received" shall not include any compensation received by a party for liquid hydrocarbons derived from processing its Gas in a Gas processing plant, unless the overproduction for which the Overproduced party is accounting was sold under a Percentage of Proceeds Sale.

E. Calculation, Collection and Distribution of Payments

1. For Cash Settlements at Termination

In the event of a cash settlement at Termination, within ten (10) days after receipt of the Final Quantity Statement from the Operator, each Overproduced party shall furnish to the Operator and the other parties a statement showing the price received for its overproduction on a monthly basis. Within ten (10) days after receipt of such pricing information from all parties, Operator shall submit to each party a statement showing the calculations and the total amount to be paid by each Overproduced party and to be received by each Underproduced party. Cash settlement shall be calculated on the "FIFO" accounting method.

Within twenty (20) days after receipt of said statement from Operator by an Overproduced party, the Overproduced party shall pay all amounts due and owing as

reflected on such statement to the Underproduced parties. In the event that all sums due and owing are not paid by an Overproduced party to the applicable Underproduced parties within the time periods set forth in this provision, interest shall accumulate on such unpaid amounts as provided herein. The amount to be received by each Underproduced party shall be determined by apportioning the total amount to be received by all Underproduced parties from all Overproduced parties among all Underproduced parties in proportion to the total sum to be received by each Underproduced party as a percent of the total sum to be received by all Underproduced parties. The amount to be paid by each Overproduced party to each Underproduced party shall be determined by apportioning the total amount to be paid by all Overproduced parties to each such Underproduced party among all Overproduced parties in proportion to the total sum to be paid by each such Overproduced party to all Underproduced parties as a percent of the total sum to be paid by all Overproduced parties to all Underproduced parties.

2. Optional Cash Settlement Pursuant to Article VII.A.(ii) from an Overproduced party Who Seeks to Transfer an Interest

In the event of a request for an Optional Cash Settlement by an Underproduced party pursuant to Article VII.A.(ii) from an Overproduced party who wishes to Transfer all or a portion of its Percentage Ownership, within twenty (20) working days after receipt of Operator's Interim Quantity Statement, the Overproduced party from whom cash settlement is sought shall provide to Operator a statement showing the price received for its overproduction on a monthly basis. Within ten (10) working days after receipt of such pricing information, Operator shall: (a) calculate the total amount due and owing by the Overproduced party and the total amount to be received by each Underproduced party requesting cash settlement based on the "FIFO" accounting method; and (b) provide the Overproduced party and each such Underproduced party with a statement showing the calculations and the total sum to be paid to said Underproduced party. The Overproduced party shall pay to each such Underproduced party the total amount due and owing as reflected in said statement within twenty (20) working days after receipt of said statement. In the event that all sums due and owing are not paid by an Overproduced party to the applicable Underproduced parties within the time periods set forth in this provision, interest shall accumulate on such unpaid amounts as provided herein.

The parties acknowledge that production and sales data may not be available for a brief period immediately preceding the closing date and prior to the effective date of the Transfer, and the transferring Overproduced party agrees to cash settle for any Gas produced during said period promptly after closing. In the event that said transferring Overproduced party for any reason fails to make all cash settlement payments required under this GBA, the transferee shall be obligated to make said payments.

3. Procedures Applicable to All Cash Settlements

For purposes of all price calculations the overproduction of each Overproduced party shall be apportioned to each Underproduced party in proportion to each Underproduced party's underproduction as a percent of the sum of the underproduction of all Underproduced parties. Overproduced volumes shall be matched to Underproduced volumes based on the order in which the overproduction and underproduction arose. The parties recognize that the months of overproduction by an Overproduced party may not coincide with the months of underproduction by an Underproduced party.

4. Amount Subject to Refund May Be Withheld.

In the event that any portion of the price actually received by an Overproduced party shall be subject to possible refund pursuant to rules and regulations issued by the Federal Energy Regulatory Commission ("FERC"), any state, administrative agency or successor governmental authority having jurisdiction, or any court order, the amount which may be ultimately required to be refunded by FERC or any other entity may be withheld without interest by the Overproduced party until such time as a final determination is made with respect thereto or until the party to whom payment is to be made provides a bond or other security to indemnify the party obligated to make such payments in form satisfactory to the

latter.

F. Operator's Liability

Except as otherwise provided herein, Operator is obligated to administer the provisions of this GBA, but shall have no liability to the other parties for losses sustained or liability incurred which arise out of or in connection with the performance of Operator's duties hereunder except such as may result from Operator's gross negligence or willful misconduct.

VIII. OPERATING EXPENSES

The operating expenses are to be borne as provided in the Operating Agreement, regardless of whether all parties are selling or using Gas or whether the sales and use of each are in proportion to their Percentage Ownership.

IX. DELIVERABILITY TESTS

Nothing herein shall be construed to deny any party the right from time to time to produce and take or deliver to the purchaser its full share of the Gas production to meet the deliverability test required by its purchaser. Also, nothing herein shall: (a) require the Operator to produce a Gas Well in excess of its deliverability or the applicable maximum allowable rate where such rate is established by regulatory authority having jurisdiction from time to time; or (b) prevent an Operator from operating the Gas Well in order to conduct such tests as may be required by any applicable regulatory authority from time to time.

X. NOMINATIONS

For each party wishing to sell, utilize or dispose of Gas from a Gas Well subject to this GBA, Operator shall provide each party an initial nomination by well/delivery point(s) six working days prior to the beginning of each month. Operator shall provide each party a revised nomination by well/delivery point as necessary during the month to reflect any change in production. Allocation of gas production in any month in which the total nominations vary from the total production shall be by the Operator according to such procedures as Operator from time to time may reasonably establish. Each non-operator party agrees to indemnify Operator for any charges or penalties incurred because of over or underdeliveries as compared to its nominations, except where such charges or penalties are solely attributable to action taken by Operator in total disregard of such nominations.

XI. TERM

This GBA shall remain in full force and effect for so long as the Operating Agreement is in effect and thereafter until the gas balance accounts are settled in full.

XII. SUCCESSORS AND ASSIGNS

The terms, covenants and conditions of this GBA shall be binding upon and shall inure to the benefit of the parties hereto and their respective legal representatives, successors and assigns. The parties hereto agree to give notice of the existence of this GBA to any successor in interest and to make any transfer of any interest subject to the Operating Agreement, or any part thereof, expressly subject to the terms of this GBA.

XIII. AUDITS

Any Underproduced party shall have the right for a period of two (2) years after receipt of payment pursuant to a final accounting and after giving written notice to all parties, to audit an Overproduced party's accounts and records relating to such payment. The party conducting such audit shall bear its costs of the audit.

XIV. MISCELLANEOUS

A. No assignment shall relieve the assignor from any obligation to the other parties with respect to any overproduction taken by assignor to such assignment.

B. Any amount remaining unpaid under the GBA more than thirty (30) days after it is due shall bear interest (commencing the day after said payment was due) at the rate set forth in the Accounting Procedure (Exhibit C to the Operating Agreement).

C. Unless the context otherwise clearly indicates, words used in the singular include the plural, and the plural includes the singular.

D. Each party agrees to maintain the necessary records and documents to enable the gas balancing and cash settlements contemplated hereby to be made.

E. If any party hereto fails to timely provide to Operator the data required hereby to enable gas balancing statements and cash settlements to be promptly made, Operator, or any other party, without prejudice to other remedies, is authorized to audit the records of the non-providing party and such audit shall be at the expense of the audited party.

F. To the extent permitted by law, this GBA shall be in lieu of and take precedence over any law, statute, rule or regulation requiring Gas balancing, revenue sharing or marketing of Gas.

G. In the event that any party is in default of any payment required by this GBA or fails to provide information required under this GBA, Operator is authorized—but not required—upon thirty (30) days notification to said defaulting party, without prejudice to any other remedies it may have, to curtail said party's Gas production from any and all Gas Wells subject to this GBA and such gas may be taken by the other parties in accordance with III.B. above.

H. In the event of a conflict between the terms of this GBA and the Operating Agreement, the terms of this GBA shall govern except where the conflict is between Article VI of this GBA and the Operating Agreement, in which event the Operating Agreement shall govern.

I. Nothing in this GBA shall be construed as precluding cash balancing at any time as may be agreed by the parties.

J. Nothing contained in this GBA shall require an Overproduced Party to pay to an Underproduced Party a sum which would be violative of any law, rule or regulation.

END OF EXHIBIT "E"

**STATE OF OHIO
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS RESOURCES MANAGEMENT**

In re the Matter of the Application of	:	
American Energy – Utica, LLC for	:	Application Date: April 21, 2015
Unit Operation	:	Supplement Date: May 19, 2015
	:	
<u>Troyer W LND GR Unit</u>	:	

**PREPARED TESTIMONY OF MICHAEL HALE
ON BEHALF OF AMERICAN ENERGY – UTICA, LLC**

W. Jonathan Airey (0017437)
Gregory D. Russell (0059718)
J. Taylor Airey (0081092)
Sean M. Kohl (0086726)
VORYS, SATER, SEYMOUR AND PEASE LLP
52 East Gay Street
P. O. Box 1008
Columbus, Ohio 43216-1008

Attorneys for Applicant,
American Energy – Utica, LLC

Date: May 19, 2015

PREPARED DIRECT TESTIMONY OF MICHAEL E. HALE

INTRODUCTION

Q1. Please introduce yourself to the Division.

A1. My name is Michael Hale. I am a Senior Geologist for American Energy – Utica, LLC (“AEU”). Our offices are located at PO Box 18756, Oklahoma City, Oklahoma 73154.

Q2. What is your educational background?

A2. I have a Bachelor’s of Science degree in Geology from East Carolina University. I also have a Master’s of Science in Geology from East Carolina University.

Q3. Would you briefly describe your professional experience?

A3. I have 7 years of experience in the oil and gas industry. I began my career as a geologic consultant for Fronterra Geosciences, where I held the position of geologist. My duties included micro-resistivity formation image analysis and large-scale reservoir and basin mapping (i.e., structure, fracture trends, lithology, etc.). While at Fronterra Geosciences, I gained significant experience in shale reservoirs, including the Appalachian Basin Devonian shales. Immediately prior to joining AEU, I spent 3.5 years at SandRidge Energy, where I held the position of geologist. My primary focus at SandRidge was on operations and development of the Permian Basin and the Mississippian Lime plays. I have spent the past two years at AEU, where I work on Marcellus Shale and Utica/Point Pleasant Formation operations and development.

Q4. What do you do as a Geologist for American Energy – Utica, LLC?

A4. My job is to help AEU best understand the geology of a given play, in order to best develop the resources. I perform large scale subsurface mapping, complete log correlations, and use various tools to understand the basin mechanics, basin geometry, and the pre- and post-depositional processes that shaped a reservoir. I help plan for well development by looking at logs and determining what I believe is the best “landing zone” for our drill bit, in order to stay within the target formation. I also work with our landmen to implement proper spacing between wells, to ensure that we are efficiently draining the resources. I perform geosteering when the well is being drilled and my involvement in the well planning process helps make that geosteering easier.

Q5. Are you a member of any professional associations?

A5. I am a member of American Association of Petroleum Geologists (AAPG), West Texas Geological Society (WTGS), and Young Professionals in Energy (YPE).

Q6. What is the purpose of your testimony today?

A6. I am testifying in support of the *Application of American Energy – Utica, LLC for Unit Operation* filed with respect to the Troyer W LND GR Unit, consisting of 39 separate tracts of land totaling approximately 517 acres in Guernsey County, Ohio. My testimony will show that the Unitized Formation described in the Application is part of a pool and thus an appropriate subject of unitization. Additionally, my testimony will support the Unit Plan's allocation of unit production and expenses to separately owned tracts on a surface-acreage basis, based on the unit area's nearly uniform thickness and substantially identical geological characteristics throughout.

UNITIZED FORMATION IS PART OF A POOL

Q7. To begin, would you tell me what a "pool" is?

A7. A pool is generally understood to be a common source of supply in pores of a rock that yields hydrocarbons on drilling. This is consistent with the Ohio statutory definition defining a pool as "an underground reservoir containing a common accumulation of oil or gas, or both, but does not include a gas storage reservoir."

Q8. How is the Unitized Formation defined for the Troyer W LND GR Unit?

A8. The Unitized Formation described in the Application is the subsurface portion of the Troyer W LND GR Unit at a depth from 50' above the top of the Utica Shale, to 50' below the base of the Point Pleasant Formation, an interval believed to be approximately 7,550 feet subsurface to 7,875 feet true vertical depth (TVD).

Q9. Do you have an opinion on whether or not the Unitized Formation contemplated by the Troyer W LND GR Unit constitutes a pool or part of a pool?

A9. Yes. It is my opinion, based on my education and professional experience, that the Unitized Formation is part of a pool.

Q10. Why?

A10. The main reason is that if you use the offsetting logs to compare different points within the reservoir, there is very little variation. Throughout the play, and more specifically, within a 5-10 mile radius of the proposed unit, the logs simply don't change much. The logs show that there is a common reservoir, of similar thickness, similar porosity, similar

permeability, and similar resistivity. Therefore, the Unitized Formation qualifies as part of a pool.

Q11. Is your opinion based on your education and professional experience?

A11. Yes.

Q12. What data sources did you use in determining the geologic features of the Troyer W LND GR Unit?

A12. We used wireline well log data and Gamma Ray data to determine the geologic features of the Troyer W. LND GR Unit. That data appears in Exhibits MH-1 and MH-2.

Q13. And is this a commonly accepted method of analysis in your profession for determining whether a pool or part of a pool exists?

A13. Yes.

ALLOCATION METHODOLOGY

Q14. Production and expenses are allocated to the separate tracts in the Troyer W LND GR Unit under the Unit Plan on a surface-acreage basis. Do you have an opinion on whether that allocation method is appropriate, given your education and professional experience?

A14. I do. In my opinion, surface allocation is the appropriate method. The reason being is that the Utica-Point Pleasant is an unconventional reservoir. Unconventional reservoirs are characterized as “blanket type” deposits and the geology is therefore essentially uniform over large areal extents. Thus, the characteristics of the rock and the type of fluid it contains should not vary under any part of the proposed unit. This is in marked contrast to the conventional reservoirs (sandstone and limestone), where the nature and even the type of rock can change dramatically over very small distances.

Q15. In your experience, is this a common method for allocating production and expenses?

A15. Yes.

Q16. Have you seen this allocation method used in other shale basins?

A16. Yes. It’s the only way I’ve ever seen it done. There just isn’t enough variation in the data to show that any one area of the proposed unit will contribute more than another to justify allocating any other way.

Q17. Does this conclude your testimony?

A17. Yes.

Exhibit MH-1



7200

7800

8000

GULFPORT ENERGY
MILLER 2-25H
APPROX. 3 MILES FROM
TROYER W LND GR UNIT

34059242910000
MILLER 2-25H

LONDONDERRY

GULFPORT ENERGY
GROH 1
APPROX. 5.5 MILES FROM
TROYER W LND GR UNIT

34059242060000
GROH 1

MADISON

TROYER W LND GR

7400

7600

7800

HESS
OXFORD A 3P-8
APPROX. 2.5 MILES FROM
TROYER W LND GR UNIT

34059242840000
OXFORD A 3P-8

OXFORD

KIRK

8200

8400



AMERICAN ENERGY
APPALACHIA

Utica/Point Pleasant
TROYER W LND GR UNIT
Trenton Structure TVD MD (C.I. 200')

Date: 14 April, 2015

1 inch = 1 miles

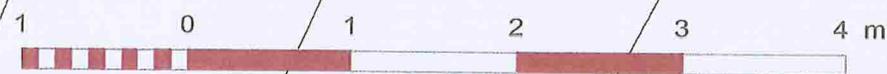


Exhibit MH-2

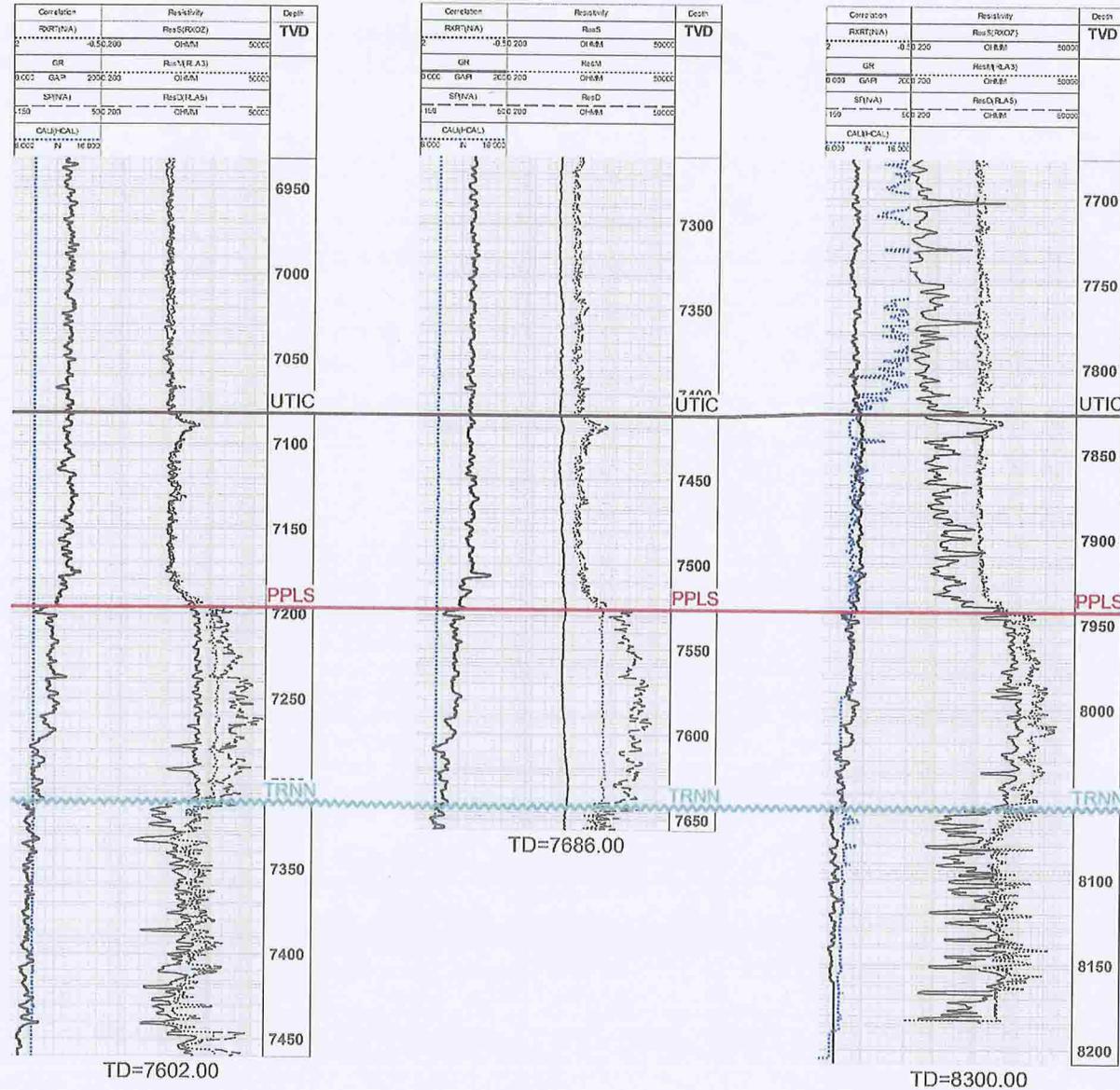
Troyer W LND GR Unit
West-East Stratigraphic* Cross Section A-A'
***Hung Stratigraphically on the Point Pleasant**

34059242060000 18179 ft 34059242910000 27995 ft 34059242840000

GULFPORT ENERGY CORP GROH 1 GULFPORT ENERGY CORP MILLER 2-25H HESS OHIO DEVL LLC OXFORD A 3P-8

A

A'



**STATE OF OHIO
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS RESOURCES MANAGEMENT**

In re the Matter of the Application of :
American Energy – Utica, LLC for :
Unit Operation : Application Date: April 21, 2015
 : Supplement Date: May 19, 2015
 :
Troyer W LND GR Unit :

**PREPARED TESTIMONY OF DAVID BAILEY
ON BEHALF OF AMERICAN ENERGY – UTICA, LLC**

W. Jonathan Airey (0017437)
Gregory D. Russell (0059718)
J. Taylor Airey (0081092)
Sean M. Kohl (0086726)
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Columbus, Ohio 43216-1008

Attorneys for Applicant,
American Energy – Utica, LLC

Date: May 19, 2015

PREPARED DIRECT TESTIMONY OF DAVID BAILEY

INTRODUCTION

Q1. Please introduce yourself to the Division.

A1. My name is David Bailey. I am a Reservoir Engineer with American Energy – Utica, LLC (“AEU”). My business address is PO Box 18756, Oklahoma City, Oklahoma 73154.

Q2. What is your educational background?

A2. I hold a Bachelor of Science degree in Petroleum Engineering from The University of Oklahoma.

Q3. Would you briefly describe your professional experience?

A3. I have approximately 4 years of experience working in oil and gas development and exploration. I have been with AEU for one year as a Reservoir Engineer working the Appalachian Basin. Prior to working for AEU, I was with another smaller production company, GMX resources, for about a year. Prior to that, I worked for Enogex, a midstream company, for about a year and a half. For all of these employers, I have worked in a reservoir engineering capacity, in multiple unconventional shale reservoirs including the Haynesville Shale, Bakken Shale, and various unconventional reservoirs in the Appalachian and Anadarko Basins.

Q4. What do you do as a Reservoir Engineer for AEU?

A4. I perform various jobs including quantifying the economic value of drilling in one area versus another; doing reserve booking/forecasting; evaluating the development potential of both current and future locations; developing type curves; and facilitating general resource development and overall optimization of the company’s field development operations.

Q5. Are you a member of any professional associations?

A5. I have been a member of the Society of Petroleum Engineers.

Q6. What is the purpose of your testimony today?

A6. I am testifying in support of the *Application of American Energy – Utica, LLC for Unit Operation* filed with respect to the Troyer W LND GR Unit, consisting of thirty-nine (39) separate tracts of land totaling approximately 517 acres in Guernsey County, Ohio. My testimony addresses the following: (i) that Unit Operations for the Troyer W LND GR Unit are reasonably necessary to increase substantially the recovery of oil and gas; and

(ii) that the value of the estimated additional recovery due to Unit Operations exceeds its estimated additional costs.

UNIT OPERATIONS ARE REASONABLY NECESSARY TO INCREASE SUBSTANTIALLY THE RECOVERY OF OIL AND GAS

Q7. I'd like to begin by addressing whether Unit Operations in the Troyer W LND GR Unit are reasonably necessary to increase substantially the recovery of oil and gas from those properties. Would you describe briefly how AEU anticipates developing the Troyer W LND GR Unit?

A7. In the unitized plan for the Troyer W LND GR leases, AEU would develop the acreage with three horizontal wells each of approximately 8,600 feet. The exact final lateral length of each well will depend upon final permit requirements. The well pad will be located in the southern part of the unit and go north according to the directional program as indicated on attached Exhibit DB-1.

Q8. Do you have an opinion on whether Unit Operations in the Troyer W LND GR Unit are reasonably necessary to substantially increase the recovery of oil and gas from those properties, and if so, what is your opinion?

A8. Yes. It is my opinion that Unit Operations are reasonably necessary to substantially increase the recovery of oil and gas from the unit properties. The additional reserves that would be recovered, and the additional proceeds that AEU, other working interest owners and royalty owners in the unit would stand to gain as a result, certainly justify the additional expenditures associated with unitization. If AEU was not able to unitize the Troyer W LND GR Unit, AEU would have to shorten 3 laterals, meaning the total length of laterals in unit would be 17,350 feet, as opposed to having 3 full length laterals totaling 26,041 feet. Because production is directly related to lateral length, shortening the laterals would significantly lower our ultimate recovery.

Q9. What volumes would be lost if those properties are stranded?

A9. Without unitization 7.50 Bcfe, or roughly 34% of the otherwise recoverable reserves, would be stranded.

Q10. Are the estimates that you made based on good engineering practices and accepted methods in the industry?

A10. Yes. I used type curves that reflect this area of the reservoir to predict performance. The type curves were developed for AEU by a third-party consulting engineering firm – WD

Von Gonten and Company Petroleum Engineering. By looking at the size and shape of the proposed unit, I was able to use the type curve data to predict the ultimate recoveries that we anticipate based on developing 3 laterals, which is what we believe is the maximum number of laterals that can be reasonably developed given the necessary spacing requirements within the unit. I predict that Unit Operation will result in the recovery of approximately 22.34 Bcfe. My calculations are summarized in Exhibit DB-2 attached hereto.

Q11. Can you calculate the production from these wells ahead of time with mathematical certainty?

A11. Utica development is relatively new. As such, there is uncertainty on the exact production for any given well; however, the range of production possible from these wells can be determined with reasonable confidence.

Q12. Is horizontal drilling technology, including hydraulic fracturing the formation, required to economically develop unconventional resources?

A12. Yes. Due to the low permeability of the Utica/Point Pleasant Formation, economically recoverable reserves would not be possible without it. Within a shale reservoir, permeability is far too low to produce hydrocarbons at an economic level without connecting a large surface area to the wellbore. That's why we drill horizontally and add fracture stages to add exposure more of the reservoir to the wellbore. This is the only way to get hydrocarbons to flow at an economic rate.

Q13. Is it fair to say that horizontal wells are commonly used to develop shale formations like the Unitized Formation today?

A13. Yes.

Q14. In your professional opinion, would it be economic to develop the Troyer W LND GR Unit using vertical drilling?

A14. No, unconventional reservoirs cannot be produced at economic flow rates without the use of horizontal drilling and the assistance of multi-stage hydraulic fracture stimulation treatments.

VALUE OF ESTIMATED ADDITIONAL RECOVERY EXCEEDS ITS ESTIMATED ADDITIONAL COSTS

Q15. Let's turn to the financial side of the project. Generally, in your professional experience, how would the economics of a development project such as the development of the Troyer W LND GR Unit be evaluated?

A15. First, the hydrocarbon volumes produced over time are developed. The commodity pricing for oil, condensate, natural gas and natural gas liquids, based on NYMEX sources, is used to generate the revenue stream. The royalties, any burdens such as federal and state taxes, capital costs and operating taxes are then subtracted from the revenue stream to evaluate the income and cash flow from each well. These dollars are then discounted at various rates to calculate various economic factors such as present values and rate of return.

Q16. Did you do that here?

A16. Yes.

Q17. Would you walk us through your economic evaluation?

A17. Yes. I use production models to predict the production of wells in the Unit. I then use our economics software to estimate capital costs for drilling and completing the wells. One of the inputs that I must provide to the software is the overall lateral length because, as noted above, the lateral length dictates the production. The software then provides me with a capital cost for constructing a well of that length. In my experience, our model is on the conservative side and we do a good job of building and completing wells at or under budget. I discounted the anticipated revenue to present value and compared present value with capital expenditures to calculate the return on the project. I used NYMEX Strip pricing as of April 16, 2015, in this case. I also included NGLs attributable to gas processing in my economic analysis. I prefer to use NYMEX Strip pricing as it is a better reflection of the current commodity market than using SEC Pricing, which is a 12-month trailing average. In addition, it is on the conservative side. Operating expenses were incorporated in my analysis. I used data gathered from both operated and non-operated wells in the Utica to estimate anticipated operating expenses for these wells.

Q18. Based on this information and your professional judgment, does the value of the estimated additional recovery from the Unit Operations proposed for the Troyer W LND GR Unit exceed its estimated costs?

A18. Yes. The capital expenses for the unitized project are \$26.7 million, as compared to \$21.9 million for the project without unitization. The net present value (PV10), which accounts for capital expenditures and operating costs, without approval of this application for Unit Operation is \$6.7 million as compared to \$11.1 million assuming an order granting Unit Operation. Accordingly, development of the Troyer W LND GR Unit with an order granting Unit Operation brings a corresponding increase in PV10 of 40 percent. Thus, the economic benefits of unitization far outweigh the additional costs necessary for unit development.

Q19. And your opinions are based on your education and professional experience?

A19. Yes.

Q20. Does this conclude your testimony?

A20. Yes.

Exhibit DB-1

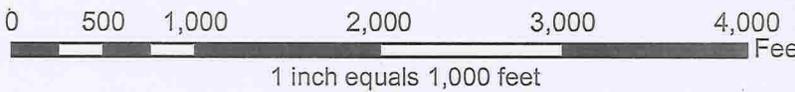


LATERAL LENGTHS
 With unitization
 Without unitization

Troyer W LND GR



AMERICAN ENERGY
 UTICA
 NAD 1927 UTM Zone 17N



- Legend
- Pad Site
 - Laterals
 - ▭ Troyer W Unit Boundary
 - - - Municipal Townships
 - GULFPORT
 - LEASED
 - ▨ NON-CONFORMING LEASE

Exhibit DB-2

Exhibit DB-2

Unitized TROYER LND GR Unit							
Well Name	Lateral Length (ft.)	Gross Capital (\$M)	Net PV10 (\$M)	Gross Residue Gas (MMcf)	Gross Processed NGLs (Mbbls)	Gross Ultimate Oil (Mbo)	Gross Reserves (MMcfe)
TROYER LND GR 1H	8,677	\$ 8,919	\$ 3,660	3,221	299	405	7,445
TROYER LND GR 3H	8,681	\$ 8,919	\$ 3,705	3,221	299	405	7,445
TROYER LND GR 5H	8,683	\$ 8,919	\$ 3,751	3,221	299	405	7,445
Total TROYER LND GR Unit	26,041	\$ 26,758	\$ 11,116	9,664	898	1,214	22,336

Un-unitized TROYER LND GR Unit							
Well Name	Lateral Length (ft.)	Gross Capital (\$M)	Net PV10 (\$M)	Gross Residue Gas (MMcf)	Gross Processed NGLs (Mbbls)	Gross Ultimate Oil (Mbo)	Gross Reserves (MMcfe)
TROYER LND GR 1H	5,014	\$ 6,898	\$ 1,366	1,827	170	239	4,282
TROYER LND GR 3H	5,916	\$ 7,396	\$ 2,413	2,170	202	280	5,061
TROYER LND GR 5H	6,420	\$ 7,673	\$ 2,945	2,362	220	303	5,498
Total TROYER LND GR Unit	17,350	\$ 21,967	\$ 6,724	6,359	591	823	14,842

Difference							
Well Name	Lateral Length (ft.)	Gross Capital (\$M)	Net PV10 (\$M)	Gross Residue Gas (MMcf)	Gross Processed NGLs (Mbbls)	Gross Ultimate Oil (Mbo)	Gross Reserves (MMcfe)
TROYER LND GR 1H	3,663	\$ 2,021	\$ 2,294	1,395	130	165	3,163
TROYER LND GR 3H	2,765	\$ 1,524	\$ 1,293	1,052	98	124	2,384
TROYER LND GR 5H	2,263	\$ 1,246	\$ 806	859	80	102	1,947
Total TROYER LND GR Unit	8,691	\$ 4,790	\$ 4,392	3,305	307	391	7,495
%Δ	33%	18%	40%	34%	34%	32%	34%

*Economics run @ 4/16/2015 NYMEX Strip Pricing

Fixed Operating Costs (\$/Month)	\$ 4,421
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Variable Operating Costs	
Oil (\$/bbl)	\$ 0.92
Gas (\$/Mcf)	\$ 0.15
Water (\$/bbl)	\$ 3.15

4

**STATE OF OHIO
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS RESOURCES MANAGEMENT**

In re the Matter of the Application of	:	
American Energy – Utica, LLC for	:	
Unit Operation	:	Application Date: April 21, 2015
	:	Supplement Date: May 19, 2015
<u>Troyer W LND GR Unit</u>	:	

**PREPARED TESTIMONY OF LINDSEY FIXLEY
ON BEHALF OF AMERICAN ENERGY – UTICA, LLC**

W. Jonathan Airey (0017437)
Gregory D. Russell (0059718)
J. Taylor Airey (0081092)
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52 East Gay Street
P. O. Box 1008
Columbus, Ohio 43216-1008

Attorneys for Applicant,
American Energy – Utica, LLC

Date: May 19, 2015

PREPARED DIRECT TESTIMONY OF LINDSEY FIXLEY

INTRODUCTION

Q1. Please introduce yourself to the Division.

A1. My name is Lindsey Fixley and I am a Senior Landman with American Energy – Utica, LLC. American Energy – Utica, LLC ("AEU"), is an independent exploration and production company.

Q2. What is your educational background?

A2. I graduated from the University of Oklahoma with a degree in Energy Management and Finance. I am also certified by the American Association of Professional Landmen (AAPL) as a Certified Professional Landman (CPL).

Q3. Would you briefly describe your professional experience?

A3. I have been employed by AEU since July of 2013, during which time I have been a Landman for AEU's Utica Division. Prior to that I worked for Parker Investment Group, Inc. and was responsible for land related activities in Oklahoma. I was also a Landman at Chesapeake Energy responsible for land related activities in the Utica Division, and before that I was a Landman at Devon Energy responsible for land related activities in the Barnett Shale.

Q4. What do you do as a Senior Landman for AEU?

A4. As a Senior Landman, I am responsible for all aspects of land within Guernsey and Noble Counties, including examining, curing, and clearing title in advance of the drilling schedule; managing field Landmen in their leasing efforts; ensuring that surface issues are being addressed in a timely manner; serving as the point of contact for attorneys, landowners, and other working interest owners; preparing and negotiating trade agreements and proposals, and compiling working interest units. I also assist AEU's Utica team in any and all other land related issues.

Q5. Are you a member of any professional associations?

A5. I am a member of American Association of Petroleum Landmen (AAPL), Young Professionals in Energy (YPE), and the Oklahoma City Association of Professional Landmen (OCAPL).

Q6. What is the purpose of your testimony today?

A6. I am testifying in support of the *Application of American Energy – Utica, LLC for Unit Operation* filed with respect to the Troyer W LND GR Unit, consisting of 39 separate tracts of land, totaling approximately 517 acres more or less in Guernsey County, Ohio. In particular, I will describe the efforts made by AEU to establish the Troyer W LND GR Unit and the Unit Plan that AEU is proposing.

EFFORTS MADE BY AEU TO LEASE UNIT TRACTS

Q7. The Application submitted by AEU indicates that it owns the oil and gas rights to more than 482 acres of the proposed 517-acre unit. Would you describe how AEU acquired those rights?

A7. AEU and its working interest partner, RHDK Oil & Gas, LLC ("RHDK") together own some of the oil and gas rights to the proposed 517 acre unit. AEU acquired additional rights through numerous other acquisitions of leases from other operators. AEU is currently working with Eclipse Resources to finalize an acquisition that will give AEU an additional 19.912 acres. All remaining working interest within the unit was acquired through traditional leasing efforts. In total, AEU owns the oil and gas rights to approximately 482 acres in the unit.

Q8. And that represents 93% of the unit acreage?

A8. Yes. AEU together with RHDK now hold leases or mineral rights oil to 482.89 acres or roughly 93% of the unit.

Q9. How many other operators are there in the Troyer W LND GR Unit?

A9. Gulfport Energy Corporation is the only operator outside of AEU, RHDK and Eclipse Resources that owns an interest within the unit boundaries. That interest is 15.276 acres or approximately 2.95% of the total unit acreage.

Q10. Are there any unleased mineral owners in the Troyer W LND GR Unit?

A10. No.

Q11. If 100% of the mineral owners are leased in the Troyer W LND GR Unit, why is AEU seeking a unitization order from the Division?

A11. Tracts 10, 24, 25, 31, 32, 33, 34, 35, and 36 in the Troyer W LND GR Unit which are held by AEU, are subject to leases with a non-conforming pooling provision (the "Non-Conforming Leases"). We have sought to amend the Non-Conforming Leases to allow for development of the Troyer W LND GR Unit but have been unable to reach an

agreement with all of the mineral owners of the tracts. Tracts 10, 24, 25, 31, 32, 33, 34, 35, and 36 represent 31.2434 unit acres being 13.6396% of the unit. AEU obtained lease modifications for 11/18ths or 61.11% of the oil and gas interest in Tracts 24, 25, 31, 32, 33, 34, 35, and 36 (the "Co-Tenant Tracts"). Accordingly, the total net non-conforming acres to be unitized for the Co-Tenant Tracts is 38.89 percent of those tracts. Thus, there is a need to unitize the tracts above to allow AEU to effectively and efficiently develop the unit. Further, the interest held by Gulfport Energy Corporation remains uncommitted.

Q12. Have you prepared an affidavit detailing AEU's efforts to obtain a lease amendment from the owner of lands subject to the Non-Conforming Leases?

A12. Yes, it is attached as Exhibit LF-2 to this testimony.

Q13. Do you have an exhibit to your testimony that shows the Non-Conforming Leases within the Troyer W LND GR Unit?

A13. Yes. Exhibit LF-3 is a plat of the Troyer W LND GR Unit showing Tracts 10, 24, 25, 31, 32, 33, 34, 35, and 36 as cross hatched.

Q20. Do you have an exhibit to your testimony that shows the acreage held by Gulfport Energy Corporation within the Troyer W LND GR Unit?

A20. Yes. Exhibit LF-3 is a plat of the Troyer W LND GR Unit showing Tracts 17 and 22 in green.

UNIT PLAN PROVISIONS

Q21. Would you describe generally the development plan for the Troyer W LND GR Unit?

A21. AEU plans to develop the Troyer W LND GR Unit from a single well pad located at the southern end of the unit, from which we intend to drill three horizontal wells. The three laterals are projected to be approximately 8,600 feet in length. Exhibit LF-3 illustrates the planned configuration. In addition to these 3 wells that will be contained within the Troyer W LND GR, we also have another planned unit with 3 wells coming off of the same pad. This unit is known as the Troyer E LND GR. In total AEU plans to drill 6 wells off of this pad but only the 3 in the Troyer W LND GR Unit.

Q22. Does AEU have a specific timeline for drilling the wells in the Troyer W LND GR Unit?

A22. Currently, the unit is on AEU's drill schedule and the intention is to drill the initial well around May of 2016 or within one year of an effective order granting Unit Operations.

Q23. Does AEU have any other development activity in the immediate area?

A23. Yes. Adjacent to the western boundary of the Troyer W LND GR Unit is AEU's Lawson LND GR Unit, which consists of three producing wells as shown on Exhibit LF-5.

Q24. Are you familiar with the Unit Plan proposed by AEU for the Troyer W LND GR Unit?

A24. Yes. The Unit Agreement explains that production proceeds from the unit will be allocated among royalty interest owners and working interest owners based on a surface-acreage basis. This is consistent with what our geologist has indicated is appropriate, given the uniform thickness and reservoir quality of the Utica formation in this area. Using a surface acreage allocation approach, each tract will be given its proportionate percentage of the proceeds by dividing the tract acreage by the total unit acreage, both of which have been calculated by certified survey.

Q25. Turning first to the body of the Unit Plan, marked as Attachment 1 to the Application. Would you describe briefly what it does?

A25. The Unit Agreement effectively combines the oil and gas rights of the various parcels within the unit in a uniform manner so that they can be developed and operate the Troyer W LND GR Unit as though it were a single lease.

Q26. Are all of the oil and gas rights in the proposed unit combined?

A26. No. The Unit Plan only unitizes the oil and gas rights in and related to the Unitized Formation, which is the interval from 50 feet above the top of the Utica Shale to 50 feet below the base of the Point Pleasant formation.

Q27. How would production from the Troyer W LND GR Unit be allocated?

A27. Production will be allocated on a surface-acreage basis. Under Article 4 of the Unit Plan, every tract is assigned a tract participation percentage based on surface acreage and shown on Exhibit A-2 to the Unit Operating Agreement. Article 5 of the Unit Plan allocates production based on that tract participation.

Q28. In your experience, is this an unusual way to allocate production in a unit?

A28. No. In my experience, surface-acreage allocation is both fair and customary for horizontal share development.

Q29. How are unit expenses allocated?

A29. Like production in the unit, generally on a surface-acreage basis. Article 3 of the Unit Plan provides that expenses, unless otherwise allocated in the Unit Operating Agreement, will be allocated to each tract of land within the unit in the proportion that the surface acres of each tract bears to the surface acres of the entire unit.

Q30. Who pays the unit expenses?

A30. According to the terms of the proposed Unit Plan, the working interest owners pay the expenses.

Q31. Do the royalty owners pay any part of the unit expenses?

A31. Royalty owners are paid according to the terms of their individual leases. Typically pursuant to our leases, royalty interest owners are only responsible for their proportionate share of taxes and third-party post-production costs.

Q32. Let's turn to the Unit Operating Agreement. It appears to be based upon A.A.P.L. Form 610 – Model Form Operating Agreement, is that correct?

A32. Yes. We typically use the AAPL Form 610 – 1989, modified by the AAPL for horizontal development. The Form 610, together with its exhibits, is a commonly used form in the industry and is frequently modified to fit the needs of the parties and circumstances.

Q33. Would it be fair to say, then, that you are familiar with the custom and usage of the Form 610 and other similar agreements in the industry?

A33. Yes.

Q34. Turning to the Unit Operating Agreement in particular, does it address how unit expenses are determined and paid?

A34. Yes. Article III of the Unit Operating Agreement provides that all costs and liabilities incurred in operations shall be borne and paid proportionately by the working interest owners, according to their Unit Participation percentages. Those percentages can be found in Exhibit A-2 to the Unit Operating Agreement. Moreover, the Unit Operating Agreement has attached to it an accounting procedure identified as Exhibit C that offers greater details regarding how unit expenses are determined and paid.

Q35. That's commonly referred to as the COPAS?

A35. Yes, it stands for the Council of Petroleum Accountants Societies and is a commonly used form in the industry.

Q36. Based upon your education and professional experience, do you view the terms of Exhibit C as reasonable?

A36. Yes. Drafted by an organization that includes members from many different companies in diverse sections of the industry, it was designed to be generally fair to the parties. AEU, in fact, is frequently subject to the COPAS in its operations with other producers.

Q37. Will there be in-kind contributions made by owners in the unit area for unit operations, such as contributions of equipment?

A37. No and none are anticipated.

Q38. Are there times when a working interest owner in the unit chooses not to – or cannot – pay their allocated share of the unit expenses?

A38. Yes, such a situation is not uncommon in the industry. The Operating Agreement includes the flexibility for one or more working interest owners to decline to participate in an operation that they believe may not be profitable, or one that they cannot afford. The remaining parties can then proceed at their own risk and expense.

Q39. Generally, what happens if a working interest owner chooses not to participate in an operation?

A39. That working owner would be considered an Uncommitted Working Interest Owner. If the remaining working interest owners decide to proceed with the operation, they would bear the full cost and expense. The Uncommitted Working Interest Owner would be deemed to have relinquished its interest in that operation until the well pays out the costs that would have been payable by that party, plus a risk penalty (non-consent penalty).

Q40. Can a working interest owner choose to go uncommitted in the initial well in the Troyer W LND GR Unit?

A40. Yes. If a working interest owner chooses not to participate in the unit's initial well, Article VI.A. of the Unit Operating Agreement provides that the working interest owner shall be deemed to have relinquished its working interest to the other parties in the unit, with a back-in provision and risk factor of 500%.

Q41. Does the Unit Operating Agreement treat the initial well and subsequent operations differently in terms of going non-consent, and if so, why?

A41. No it does not, unless the uncommitted party is an unleased mineral owner. Subsequent operations will use the same risk factor of 500% for Uncommitted Working Interest

Owners. The non-consent penalty for unleased mineral owners will be 200% for each well.

Q42. But if the working interest owner still has a royalty interest in the unit, that royalty interest would remain in place and be paid?

A42. Yes. That royalty interest would still be paid.

Q44. In your professional opinion, given your education and experience, are the terms of the Unit Plan, and the Unit Operating Agreement, just and reasonable?

A44. Yes.

Q45. Who makes decisions about how the unit is operated?

A45. AEU will be the Unit Operator and will operate the unit according to any agreements it has in place with various working interest partners.

Q46. Does this conclude your testimony?

A46. Yes.

Exhibit LF-1

STATE OF OHIO
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS RESOURCES MANAGEMENT

In re the Matter of the Application of :
American Energy - Utica, LLC for : Application Date: April 21, 2015
Unit Operation :
:
Troyer W LND GR Unit :

AFFIDAVIT OF OWNERSHIP

I, Lindsey Fixley, being first duly cautioned and sworn, do hereby depose and state as follows:

1. My name is Lindsey Fixley and I am a Senior Landman with American Energy - Utica, LLC ("Applicant"). My day-to-day responsibilities include all aspects of land within Guernsey County, Ohio, including ordering, examining, curing, and clearing title in advance of the drilling schedule; managing field Landmen in leasing efforts; ensuring that surface issues are being address in a timely manner; serving as the contact person for attorneys, landowners, and other working interest owners; preparing and negotiating acquisition and trade agreement and proposals; and compiling working interest units; for the Applicant in the State of Ohio, and I have personal knowledge of the facts stated herein.

2. Pursuant to Ohio Revised Code § 1509.28, the Applicant has filed an application with the Chief of the Division of Oil and Gas Resources Management requesting an order authorizing Applicant to operate the Unitized Formation and applicable land area, identified as the Troyer W LND GR Unit, according to the Unit Plan attached thereto (the "Application") (as those terms are used and defined therein). The Troyer W LND GR Unit is located in Guernsey County, Ohio, and consists of thirty-nine (39) separate tracts of land covering approximately 517 acres.

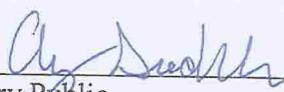
3. As of the Application Date set forth above, the Applicant and the Working Interest Owners supporting the Application are the owners, as that term is defined in Ohio Revised Code § 1509.01(K), of at least 65% of the land overlying the Unitized Formation, as outlined in Exhibit A attached hereto.

Further sayeth Affiant naught.



Sworn to and subscribed before me this 20th day of April, 2015.





Notary Public

STATE OF OHIO
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS RESOURCES MANAGEMENT

In re the Matter of the Application of :
American Energy - Utica, LLC for : Application Date: April 21, 2015
Unit Operation :
:
Troyer W LND GR Unit :

LEASE AFFIDAVIT

I, Lindsey Fixley, being first duly cautioned and sworn, do hereby depose and state as follows:

1. My name is Lindsey Fixley and I am a Senior Landman with American Energy - Utica, LLC ("Applicant"). My day-to-day responsibilities include overseeing and directing lease acquisition for Applicant in Guernsey County, Ohio for the Applicant, and I have personal knowledge of the facts stated herein.

2. Pursuant to Ohio Revised Code § 1509.28, the Applicant has filed an application with the Chief of the Division of Oil and Gas Resources Management requesting an order authorizing Applicant to operate the Unitized Formation and applicable land area, identified as the Troyer W LND GR Unit, according to the Unit Plan attached thereto (the "Application") (as those terms are used and defined therein). The Troyer W LND GR Unit is located in Guernsey County, Ohio and consists of thirty-nine (39) separate tracts of land covering approximately 517 acres.

3. To my knowledge the Applicant holds a valid lease agreement pertaining to all of the Applicant's acreage that is held under lease, as described in Exhibit A-2 and A-4 of the Unit Operating Agreement attached to the Application.

Further sayeth Affiant naught.

Lindsey Fixley

Sworn to and subscribed before me this 20th day of April, 2015.



Amy Sneaker
Notary Public

**STATE OF OHIO
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS RESOURCES MANAGEMENT**

In re the Matter of the Application of :
American Energy – Utica, LLC for : Application Date: April 21, 2015
Unit Operation :
:
Troyer W LND GR Unit :

WORKING INTEREST OWNER APPROVAL

American Energy – Utica, LLC (“Applicant”) has prepared and/or filed an application asking the Chief of the Division of Oil and Gas Resources Management to issue an order authorizing Applicant to operate the Troyer W LND GR Unit, located in Guernsey County, Ohio, and consisting of thirty-nine (39) separate tracts of land covering approximately 517.086 acres, according to the Unit Plan attached thereto (the “Application”).

Eclipse Resources I, LP is an owner (as that term is defined in Ohio Revised Code § 1509.01(K)) of 3 tract(s) of land covering approximately 18.912 acres contained in the Troyer West Unit, or 3.6574% of the lands in the unit, all as more specifically described on attached Exhibit 1.

Eclipse Resources I, LP hereby approves, and supports the making of, the Application, including without limitation the Unit Plan attached thereto, and acknowledge receipt of full and true copies thereof.

Eclipse Resources I, LP

By: 
Stan Richards, Senior Land Advisor

Date: 4-15-15

Exhibit 1

TRACT NUMBER	LESSOR	SURFACE ACRES IN UNIT	PARCEL ID NUMBER
1	Chad J. Kinney, Jessica M. Kinney, husband & wife	4.431	20-0001214.001
2	Brian K. Roe and S. Jean Roe, husband and wife	9.778	20-0001424.000
3	Frank Ollis and Kelly M. Ollis, husband and wife	4.703	20-0001216.001

Exhibit LF-2

**STATE OF OHIO
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS RESOURCES MANAGEMENT**

In re the Matter of the Application of :
 American Energy – Utica, LLC for :
 Unit Operation : Application Date: April 21, 2015
 : Supplement Date: May 19, 2015
 :
Troyer W LND GR Unit :

AFFIDAVIT OF LINDSEY FIXLEY

(CONTACTS – UNLEASED MINERAL OWNER)

I, Lindsey Fixley, being first duly cautioned and sworn, do hereby depose and state as follows:

1. My name is Lindsey Fixley, and I am a Senior Landman with American Energy – Utica, LLC (“Applicant”). My day-to-day responsibilities include overseeing and directing lease acquisition for Applicant in Guernsey County in the State of Ohio. My duties regularly require me to coordinate my efforts with contractors associated with multi-well field development efforts, for the Applicant in the State of Ohio, and I have personal knowledge of the facts stated herein.

2. I have made attempts to secure an agreement for lands within the Troyer W LND GR Unit. Further, I have personal knowledge of contacts that I have made and attempted to make on behalf of Applicant to secure a voluntary working interest agreement within the Troyer W LND GR Unit. Those efforts are detailed below.

3. Regarding the following tract, the following contacts were made or attempted:

**Parcel No. 20-0001407.000 and 20-0001428.000 (Tract 22 and Tract 17)
Working Interest Owner: Gulfport Energy Corporation (“Gulfport”)**

<u>Date</u>	<u>Party Contacted</u>	<u>By Whom</u>	<u>Method</u>	<u>Address of Contact</u>	<u>Response</u>
04/13/2015	Stuart McClain	Lindsey Fixley	Telephone	N/A	No answer
04/13/2015	Dale Smith	Lindsey Fixley	Telephone	N/A	Dale Smith will forward request to Stuart McClain.
04/13/2015	Lindsey Fixley	Stuart McClain	Email	N/A	Gulfport does not wish to join in unitization and prefers to trade out.
04/14/2015	Christen Stone	Lindsey Fixley	Email	N/A	Requested signature on working interest owner approval form be returned by 4/21/15.
04/15/2015	Lindsey Fixley	Christen Stone	Email	N/A	Gulfport will not execute attached form. Gulfport wants to remain an uncommitted working interest owner for appli-

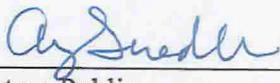
<u>Date</u>	<u>Party Contacted</u>	<u>By Whom</u>	<u>Method</u>	<u>Address of Contact</u>	<u>Response</u>
04/15/2015	Gulfport Energy	Lindsey Fixley	U.S. Mail	Gulfport Energy Corporation, 14313 N. May Avenue, Suite 100, Oklahoma City, Oklahoma 73154	<p>ation. Gulfport still desires to trade out.</p> <p>Sent working interest approval form.</p>

Further sayeth Affiant naught.



 Lindsey Fixley

Sworn to and subscribed before me this 15th day of May, 2015.



 Notary Public



**STATE OF OHIO
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS RESOURCES MANAGEMENT**

In re the Matter of the Application of
American Energy – Utica, LLC for
Unit Operation
Troyer W LND GR Unit

Application Date: April 21, 2015
Supplement Date: May 19, 2015

AFFIDAVIT OF LINDSEY FIXLEY

(CONTACTS – UNLEASED MINERAL OWNER)

I, Lindsey Fixley, being first duly cautioned and sworn, do hereby depose and state as follows:

1. My name is Lindsey Fixley, and I am a Senior Landman with American Energy – Utica, LLC (“Applicant”). My day-to-day responsibilities include overseeing and directing lease acquisition for Applicant in Guernsey County in the State of Ohio. My duties regularly require me to coordinate my efforts with contractors associated with multi-well field development efforts, for the Applicant in the State of Ohio, and I have personal knowledge of the facts stated herein.

2. As part of those responsibilities, I work with and supervise contractors representing Applicant who contact landowners and obtain oil and gas leases on behalf of Applicant, including individuals from Purple Land Management (“Contractor”).

3. I have received reports of contacts and attempts to contact that Contractor has made to lease unleased lands within the Troyer W LND GR Unit. Further, I have personal knowledge of contacts that I have made and attempted to make on behalf of Applicant to lease unleased lands within the Troyer W LND GR Unit. Those efforts are detailed below.

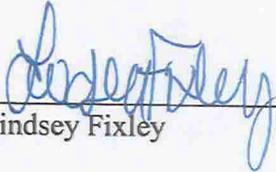
4. Regarding the following tract, the following contacts were made or attempted:

Parcel No. 20-0000590.000 (Tract 10)
Owner’s Name: George Dudich, Jr., and Karen L. Dudich
(“Current Owner”)

<u>Date</u>	<u>Party Contacted</u>	<u>By Whom</u>	<u>Method</u>	<u>Address of Contact</u>	<u>Response</u>
4/9/2014	George Dudich	Broker	In person		Mr. Dudich wants to review offer
10/29/2014	George Dudich	Brad Janssen	In person		Mr. Dudich reviewing offer
11/11/2014	George Dudich	Brad Janssen	email		Mr. Dudich reviewing offer
1/16/2015	George Dudich	Brad Janssen	Text		Attempt to schedule meeting with Mr. Dudich in Ohio next week
1/20/2015	George Dudich	Brad Janssen	Text		Mr. Dudich will call back to schedule in-person meeting

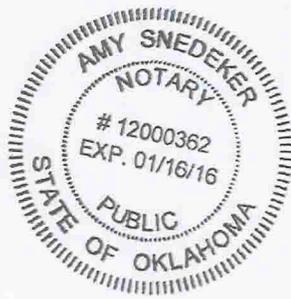
<u>Date</u>	<u>Party Contacted</u>	<u>By Whom</u>	<u>Method</u>	<u>Address of Contact</u>	<u>Response</u>
1/23/2015	George Dudich	Brad Janssen	Text		Mr. Dudich wants to discuss by phone next week
2/4/2015	George Dudich	Brad Janssen	Text		Cancelled meeting
2/9/2015	George Dudich	Brad Janssen	Text		Will call back later in the week
2/12/2015	George Dudich	Brad Janssen	Text		Attempt to schedule meeting in Ohio next week
2/20/2015	George Dudich	Brad Janssen	Text		No response
3/16/2015	George Dudich	Brad Janssen	Email		Mr. Dudich will contact later in the week
3/19/2015	George Dudich	Brad Janssen	email		Mr. Dudich is planning to discuss with his attorney
3/23/2015	George Dudich	Brad Janssen	email		Mr. Dudich trying to review offer with his attorney

Further sayeth Affiant naught.



 Lindsey Fixley

Sworn to and subscribed before me this 15th day of May, 2015.





 Notary Public

**STATE OF OHIO
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS RESOURCES MANAGEMENT**

In re the Matter of the Application of :
American Energy – Utica, LLC for :
Unit Operation : Application Date: April 21, 2015
 : Supplement Date: May 19, 2015
 :
Troyer W LND GR Unit :

AFFIDAVIT OF LINDSEY FIXLEY

(CONTACTS – UNLEASED MINERAL OWNER)

I, Lindsey Fixley, being first duly cautioned and sworn, do hereby depose and state as follows:

1. My name is Lindsey Fixley, and I am a Senior Landman with American Energy – Utica, LLC (“Applicant”). My day-to-day responsibilities include overseeing and directing lease acquisition for Applicant in Guernsey County in the State of Ohio. My duties regularly require me to coordinate my efforts with contractors associated with multi-well field development efforts, for the Applicant in the State of Ohio, and I have personal knowledge of the facts stated herein.

2. As part of those responsibilities, I work with and supervise contractors representing Applicant who contact landowners and obtain oil and gas leases on behalf of Applicant, including individuals from Purple Land Management (“Contractor”).

3. I have received reports of contacts and attempts to contact that Contractor has made to lease unleased lands within the Troyer W LND GR Unit. Further, I have personal knowledge of contacts that I have made and attempted to make on behalf of Applicant to lease unleased lands within the Troyer W LND GR Unit. Those efforts are detailed below.

4. Regarding the following tract, the following contacts were made or attempted:

Parcel No. 20-0000084.000, 20-0001713.000, 20-0001243.000, 20-0001243.002, 20-0001243.001, 20-0001243.005, 20-0001243.004, 250-0001243.003 (Tracts 24, 25, 31, 32, 33, 34, 35, and 36)

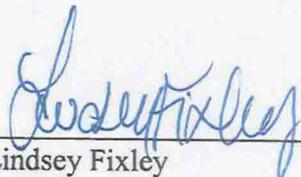
Owner’s Name: Jason Walvatne, Barbara Pittillo, Brenda Reynolds and Don Boniphant (“Current Owners”)¹

<u>Date</u>	<u>Party Contacted</u>	<u>By Whom</u>	<u>Method</u>	<u>Address of Contact</u>	<u>Response</u>
9/11/2014	Barbara Pittillo	Broker	In person at residence		Not Home
9/11/2014	Don Boniphant	Broker	In person at residence		Indicated Brenda Reynold was representing him and called Brenda to schedule a meeting
9/12/2014	Brenda Reynolds; Don Boniphant	Broker	In person at residence		Need time to contact other heirs and discuss how to move forward
9/17/2014	Brenda Reynolds	Broker	In person at		Not Home

¹ The Current Owners represent all of the mineral owners who have not executed lease modifications on the tracts above.

<u>Date</u>	<u>Party Contacted</u>	<u>By Whom</u>	<u>Method</u>	<u>Address of Contact</u>	<u>Response</u>
			residence		
9/18/2014	Brenda Reynolds	Broker	In person at residence		Asked broker to come back another time
10/15/2014	Brenda Reynolds	Broker	In person at residence		Asked broker to come back the next day
10/16/2014	Brenda Reynolds	Broker	In person at residence		Wants to take documents to her attorney for review
10/28/2014	Brenda Reynolds; Don Boniphant	Broker	In person at residence		Still want to discuss with other heirs and waiting on attorney's review
12/13/2015	Counsel for Brenda Reynolds; Don Boniphant; Barbara Pittillo	AEU Outside Counsel	Telephone		Left message
12/17/2015	Counsel for Brenda Reynolds; Don Boniphant; Barbara Pittillo	AEU Outside Counsel	Telephone		Left message
12/19/2015	Counsel for Brenda Reynolds; Don Boniphant; Barbara Pittillo	AEU Outside Counsel	Telephone		Rejected AEU offer
02/04/2015	Brenda Reynolds; Don Boniphant; Barbara Pittillo; Counsel	AEU Outside Counsel; Lindsey Fixley; Chelsea Lewis; Brad Janssen	In person at Reynolds, etal Counsel's office		Need time to think about offer
02/16/2015	AEU Outside Counsel	Counsel for Brenda Reynolds; Don Boniphant; Barbara Pittillo	Email		Rejected AEU offer
3/12/2015	Tom Westerfield	Jason Walvtne	Telephone		Phone was disconnected
3/13/2015	Brad Eier	Jason Walvtne	Certified Mail		Mailing was undeliverable

Further sayeth Affiant naught.


Lindsey Fixley

Sworn to and subscribed before me this 15th day of May, 2015.



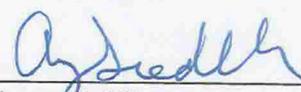

Notary Public

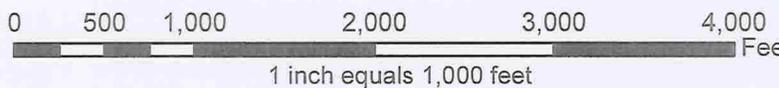
Exhibit LF-3



LATERAL LENGTHS
 With unitization
 Without unitization

4/20/2015 2:28:40 PM

Troyer W LND GR



Legend

- Pad Site
- Laterals
- ▭ Troyer W Unit Boundary
- ▭ Municipal Townships
- ▭ GULFPORT
- ▭ LEASED
- ▭ NON-CONFORMING LEASE

Exhibit LF-4

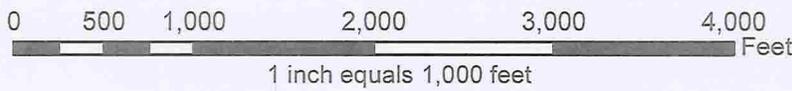


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Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

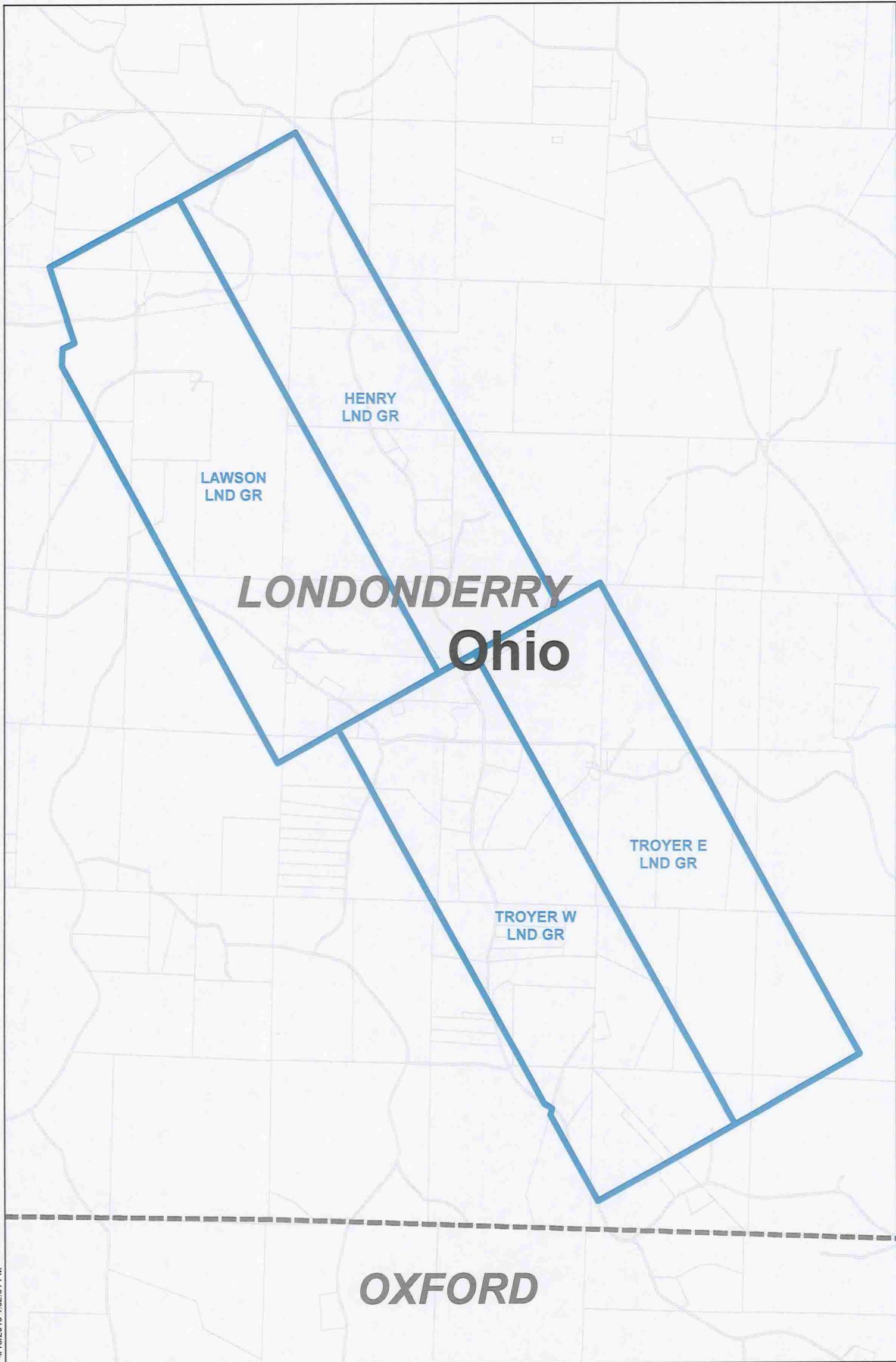
Troyer West


AMERICAN ENERGY
UTICA
 NAD 1927 UTM Zone 17N



- Legend**
-  Pad Site
 -  Henry Unit Boundary
 -  Municipal Townships
 -  GULFPORT
 -  LEASED
 -  NON-CONFORMING LEASE
 -  Laterals

Exhibit LF-5



Troyer W LND GR Unit
Exhibit LF-5

