

COSMOPOLITAN UNIT

APPROVAL, IN PART, OF THE UNIT FORMATION

Findings and Decision of the Director
of the Division of Oil and Gas
Under Delegation of Authority
from the Commissioner of the State of Alaska
Department of Natural Resources

June 26, 2015

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I. INTRODUCTION AND DECISION SUMMARY

This is the decision of the Alaska Department of Natural Resources (DNR), Director (Director) of the Division of Oil and Gas (Division) pursuant to a September 30, 1999, delegation of authority from the DNR Commissioner on the March 15, 2015, application of BlueCrest Energy, Inc. (BlueCrest), on behalf of itself as a single working interest owner, to form the Cosmopolitan Unit (CO). The request to form the unit is approved, in part, as to those leases overlying the Hemlock and Starichkof reservoirs. Several wells have been drilled in the proposed unit area, and two wells are certified. The Hansen #1AL1 well tested the Starichkof target and cumulatively produced in excess of 33,000 Stock Tank Barrels (STB). The unit formation application is otherwise denied because BlueCrest did not commit to produce or delineate other areas of the proposed CO. Therefore, the leases included in the unit are ADLs 384403, 391902, 391903, 391904, and 18790. ADL 391903 is segregated, and that portion not committed to the unit is relinquished. The leases excluded from the unit are ADLs 391899 and 391900. The approximate area of the approved unit is 14,423 acres.

The Director finds approval, in part, of the formation of the CO is in the public interest because it promotes conservation of all natural resources, promotes the prevention of economic and physical waste, and provides for the protection of all parties, including the State. AS 38.05.180(p) and 11 AAC 83.303. The CO formation is approved in accordance with the criteria under 11 AAC 83.303 and under the terms and conditions of this decision. This approval constitutes the written findings and decision required under 11 AAC 83.303 and is fully appealable.

II. FACTS

The proposed unit is located on the Kenai Peninsula, offshore, north of Anchor Point, and covers approximately 22,535 acres of State lands within seven individual State oil and gas leases. Approval of the proposed Cosmopolitan Unit Agreement (Agreement) conforms and modifies the lease contracts to be consistent with the Agreement, and extends the term of the leases for as long as they are subject to the Agreement.

The Cosmopolitan field was discovered by the Pennzoil Oil Company in 1967 when it drilled the Starichkof State #1 well on State lease ADL 18790. In the mid-1990s, Atlantic Richfield Co. (ARCO) began investigating the prospect, acquiring other working interests, and exploring. After its acquisition of ARCO Alaska, Phillips continued to explore the area. In 2001, Phillips formed the Cosmopolitan Unit, including seven individual State leases and two federal offshore leases immediately west of the State leases. In the same year, Phillips also completed the Hansen #1 well, drilled directionally from an onshore drill site approximately 2.5 miles away from the target reservoirs. The Hansen #1 well reconfirmed the presence of producible oil in the previously-discovered Starichkof zone, and it also confirmed productive sands in the Hemlock interval. In 2003, ConocoPhillips drilled the Hansen #1A well (a sidetrack of the Hansen #1 well) in ADL 384403. The Hansen #1A well was tested at rates averaging 765 Barrels of Oil Per Day (BOPD) and produced a cumulative total of 14,851 STB of medium-gravity (24-27 degrees API) sweet oil. The well was certified as capable of producing in commercial quantities in 2005.

Also in 2005, Pioneer Natural Resources (Pioneer) joined with ConocoPhillips to obtain approximately 40 square miles of 3-D seismic data over the entire project area.

In February 2011, Pioneer voluntarily terminated the Cosmopolitan Unit and retained ADL 18790 and ADL 384403 held by certified wells. In late 2010 and early 2011, Buccaneer Alaska, LLC and BlueCrest Energy II, LP began negotiations with Pioneer to jointly acquire ADL 18790 and ADL 384403. In the summer of 2013, Buccaneer Cosmopolitan and BlueCrest jointly drilled the Cosmopolitan State #1 well in ADL 384403 from an offshore surface location. The Cosmopolitan State #1 well discovered numerous oil and gas zones within the Upper and Lower Tyonek (above the previously-known Starichkof and Hemlock zones), and a vertical seismic profile was conducted in the well to assist in interpretation of the previous seismic data.

BlueCrest acquired 100 percent working interest ownership of all of the Cosmopolitan State leases in 2014. Its application for approval to establish the Cosmopolitan Unit was deemed complete on March 18, 2015.

BlueCrest submitted Exhibits A and B to the Agreement depicting the proposed CO. Exhibit A (Attachment 1) displays the proposed unit tract numbers, legal descriptions, lease numbers, working interest ownership, royalty interest ownership, and overriding royalty interest ownership for the CO.

The proposed unit area is summarized below and fully described in Attachments 1 and 2.

ADL	Acres	Working Interest Ownership and %	State Royalty Interest %	Lease Form	Lease Effective Date	Lease Expiry Date
391902 Tract 1	1,109.14	BlueCrest Energy, Inc., 100%	12.5	DOG 200604 (rev. 4/11)	9/1/11	8/31/16
384403 Tract 2	2758.69	BlueCrest Energy, Inc., 100%	12.5	DOG 9208	1/1/95	certified well, 3/3/05
391903 Tract 3	2,560.00	BlueCrest Energy, Inc., 100%	12.5	DOG 200604 (rev. 4/11)	9/1/11	8/31/16
18790 Tract 4	3,959.36	BlueCrest Energy, Inc., 100%	12.5	DL-1 (rev. 4/61)	9/1/62	certified well, 8/2/67
391904 Tract 5	4,035.72	BlueCrest Energy, Inc., 100%	12.5	DOG 200604 (rev. 4/11)	9/1/11	8/31/16
391899 Tract 6	5,589.08	BlueCrest Energy, Inc., 100%	12.5	DOG 200604 (rev. 3/09)	9/1/12	8/31/19
391900 Tract 7	1,464.41	BlueCrest Energy, Inc., 100%	12.5	DOG 200604 (rev. 3/09)	9/1/12	8/31/19

Exhibit B (Attachment 2) is a map of the proposed CO area. Attachments 3 and 4 describe the leases included within the approved unit and show the approved unit boundary.

BlueCrest submitted its Application along with the \$5,000.00 unit application filing fee, in accordance with 11 AAC 83.306 and 11 AAC 05.010(a)(10)(D). The Application also included a Plan of Development and confidential geological, geophysical, and engineering information to support the Application. The Division deemed the Application complete and issued public notice of the Application.

On March 25, 2015, the Division published a public notice of the Application in the *Alaska Dispatch News* and in the *Peninsula Clarion*, under 11 AAC 83.311. The Division provided public notice to, among others, the Alaska Department of Environmental Conservation, Kenai Peninsula Borough, Salamatoff Native Association, Cook Inlet Region, Inc., and radio station KDLL-FM. The notice was also published on the State of Alaska Public Notice website and the Division's website. The public notices invited interested parties and members of the public to submit comments by April 27, 2015. No comments were received.

III. STATUTORY, REGULATORY, AND UNIT AGREEMENT PROVISIONS RELEVANT TO THE APPLICATION

The statutory standard for approving unitization is whether it is necessary or advisable in the public interest:

“To conserve the natural resources of all or a part of an oil or gas pool, field, or like area, the lessees and their representatives may unite with each other, or jointly or separately with others, in collectively adopting or operating under a cooperative or a unit plan of development or operation of the pool, field, or like area, or a part of it, when determined and certified by the commissioner to be necessary or advisable in the public interest.” AS 38.05.180(p)(emphasis added).

The State legislature has also identified several aspects of the public interest with regard to the State oil and gas leasing program:

- “(a) The legislature finds that
- (1) the people of Alaska have an interest in the development of the State's oil and gas resources to
 - (A) maximize the economic and physical recovery of the resources;
 - (B) maximize competition among parties seeking to explore and develop the resources;
 - (C) maximize use of Alaska's human resources in the development of the resources;
 - (2) it is in the best interests of the state
 - (A) to encourage an assessment of its oil and gas resources and to allow the maximum flexibility in the methods of issuing leases to
 - (i) recognize the many varied geographical regions of the state and the different costs of exploring for oil and gas in these regions;
 - (ii) minimize the adverse impact of exploration, development, production, and transportation activity; and

(B) to offer acreage for oil and gas leases, specifically including
(i) state acreage that has been the subject of a best interest finding at annual areawide lease sales; and
(ii) land in areas that, under (d) of this section, may be leased without having been included in the leasing program prepared and submitted under (b) of this section.”
AS 38.05.180(a).

Unitization extends the primary term of a lease. AS 38.05.180(m) provides in relevant part:

“An oil and gas or gas only lease shall be extended beyond its primary term if, at the end of the primary term, oil or gas is produced from the lease and for so long thereafter as oil or gas is produced in paying quantities from the lease or if the lease is committed to a unit approved by the commissioner.”

DNR has set forth unitization decision criteria in regulation to retain the public interest as the primary criterion:

“**11 AAC 83.303. Criteria.** (a) The commissioner will approve a proposed unit agreement for state oil and gas leases if he makes a written finding that the agreement is necessary or advisable to protect the public interest considering the provisions of AS 38.05.180(p) and this section. The commissioner will approve a proposed unit agreement upon a written finding that it will
(1) promote conservation of all natural resources, including all or part of an oil or gas pool, field, or like area;
(2) promote the prevention of economic and physical waste; and
(3) provide for the protection of all parties of interest, including the state.
(b) In evaluating the above criteria, the commissioner will consider
(1) the environmental costs and benefits of unitized exploration or development;
(2) the geological and engineering characteristics of the potential hydrocarbon accumulation or reservoir proposed for unitization;
(3) prior exploration activities in the proposed unit area;
(4) the applicant's plans for exploration or development of the unit area;
(5) the economic costs and benefits to the state; and
(6) any other relevant factors, including measures to mitigate impacts identified above, the commissioner determines necessary or advisable to protect the public interest.
(c) The commissioner will consider the criteria in (a) and (b) of this section when evaluating each requested authorization or approval under 11 AAC 83.301—11 AAC 83.395, including
(1) an approval of a unit agreement;
(2) an extension or amendment of a unit agreement;
(3) a plan or amendment of a plan of exploration, development or operations;
(4) a participating area; or
(5) a proposed or revised production or cost allocation formula.”

The regulations touch on unit expansion to require that a unit include at least part of a potential hydrocarbon reservoir:

“11 AAC 83.356. Unit area; contraction and expansion.

(a) A unit must encompass the minimum area required to include all or part of one or more oil or gas reservoirs, or all or part of one or more potential hydrocarbon accumulations.
....”

Potential “hydrocarbon reservoir,” “reservoir,” and “unit” are defined by regulation as follows:

“11 AAC 83.395. Definitions.

Unless the context clearly requires a different meaning, in 11 AAC 83.301 - 11 AAC 83.395 and in the applicable unit agreements
....

(5) "potential hydrocarbon accumulation" means any structural or stratigraphic entrapping mechanism which has been reasonably defined and delineated through geophysical, geological, or other means and which contains one or more intervals, zones, strata, or formations having the necessary physical characteristics to accumulate and prevent the escape of oil and gas;

(6) "reservoir" means an oil or gas accumulation which has been discovered by drilling and evaluated by testing and which is separate from any other accumulation of oil and gas;

(7) "unit" means a group of leases covering all or part of one or more potential hydrocarbon accumulations, or all or part of one or more adjacent or vertically separate oil or gas reservoirs, which are subject to a unit agreement;
....”

Cosmopolitan Unit Agreement

Article 4.2 of the unit agreement addresses the creation and effect of the unit. It states in relevant part:

“4.2. The provisions of a Lease committed to this Agreement and of any other agreement regarding that Lease are modified to conform to the provisions of this Agreement and statutes and regulations regarding oil and gas leases and units existing on the Effective Date of this Agreement or enacted thereafter.”

Article 12 addresses leases, rentals, and royalty payments. It states in relevant part:

“12.10. ...If a Lease requires payment of minimum royalty, the Lease is amended to delete that minimum royalty obligation.”

IV. DISCUSSION OF DECISION CRITERIA

The primary statutory decision criterion for unitization applications is whether approval is necessary or advisable in the public interest to conserve oil and gas resources. AS 38.05.180(p).

The primary regulatory decision criterion for a unitization application is also the public interest. 11 AAC 83.303(a).

A proposed unit will be approved if the Commissioner finds that it is necessary or advisable to protect the public interest and unitization will (1) promote conservation of all natural resources, including all or part of an oil or gas pool, field, or like area; (2) promote the prevention of economic and physical waste; and (3) provide for the protection of all parties of interest including the State. 11 AAC 83.303(a). Conservation of the natural resources of all or part of an oil or gas pool, field, or like area means, “maximizing the efficient recovery of oil and gas and minimizing the adverse impacts on the surface and other resources.” 11 AAC 83.395(1).

In evaluating the 11 AAC 83.303(a) criteria, the Commissioner will consider (1) the environmental costs and benefits of unitized exploration or development; (2) the geological and engineering characteristics of the potential hydrocarbon accumulation or reservoir proposed for unitization; (3) prior exploration activities in the proposed unit area; (4) the applicant’s plans for exploration or development of the unit area; (5) the economic costs and benefits to the State; and (6) any other relevant factors, including measures to mitigate impacts identified above, the commissioner determines necessary or advisable to protect the public interest. 11 AAC 83.303(b).

A. 11 AAC 83.303(b) Decision Considerations

This section discusses the 11 AAC 83.303(b) factors to be considered with the 11 AAC 83.303(a) decision criteria.

1. 303(b)(1) - Environmental Costs and Benefits

The proposed unit area is habitat for various mammals, waterfowl, and fish. Residents may use this area for subsistence hunting and fishing. Oil and gas activity in the proposed unit area may affect some wildlife habitat and some subsistence activity. DNR develops lease stipulations through the lease sale process to mitigate the potential environmental impacts from oil and gas activity.

DNR also considers environmental issues during the lease sale process, and the unit Plan of Operations approval process. Alaska statutes require DNR to give public notice and issue a written finding before disposal of the State’s oil and gas resources. AS 38.05.035(e); AS 38.05.945; 11 AAC 82.415. In the written best interest finding, the Commissioner may impose additional conditions or limitations beyond those imposed by law. AS 38.05.035(e).

Approval of the CO formation has no direct environmental impact. This decision is an administrative action and does not authorize any on-the-ground activity. The unit formation does not entail any environmental costs in addition to those that may occur when permits to conduct lease-by-lease exploration or development are issued. The Unit Operator must obtain approval of a plan of operations from the State and permits from various agencies on State leases before drilling a well or wells or initiating development activities to produce reservoirs within the unit area. 11 AAC 83.346. Potential effects on the environment are analyzed when permits to conduct

exploration or development in the unit area are reviewed. BlueCrest is operating under an approved plan of operations.

2. 303(b)(2) - Geological and Engineering Characteristics

Under 11 AAC 83.356(a), a unit must encompass the minimum area required to include all or part of one or more oil or gas reservoirs, or all or part of one or more potential hydrocarbon accumulations. 11 AAC 83.395(5) defines a “potential hydrocarbon accumulation” as “any structural or stratigraphic entrapping mechanism which has been reasonably defined and delineated through geophysical, geological, or other means and which contains one or more intervals, zones, strata, or formations having the necessary physical characteristics to accumulate and prevent the escape of oil and gas.”

Data and information submitted by BlueCrest to the Division in support of its application to form the CO included geologic cross sections, analyses of well log, core, and fluid data, and regional structure maps. Some of the information and data BlueCrest submitted in support of its Application is confidential under AS 38.05.035(a)(8)(C) and 11 AAC 96.220. The BlueCrest data shows a high enough probability, when considered with earlier development and exploration efforts, to conclude for purposes of the Application that much of the proposed unit area is underlain by hydrocarbons. A broader discussion based on publically available information follows.

The Cosmopolitan structure is a northeast-southwest trending, doubly plunging asymmetric anticline bounded along its west flank by a southeast-dipping high angle reverse fault that strikes parallel to the structural axis. Associated tear faults with normal throw cut the northern and southern portions of the feature. This structure, which is 4 ½ miles by 2 miles in size, has approximately 600 feet of vertical closure over an area of over 6,000 acres at the Starichkof sand (Lower Tyonek sandstone just above the Hemlock Conglomerate). Structural control includes six wellbores, 3-D seismic data, dip meter data in two wells, and 2-D high resolution seismic data.

Approximately 8,600 feet of Tertiary age Kenai Group non-marine sedimentary rocks are present. The Kenai Group is represented by approximately 1,000 feet of the Beluga Formation characterized by thin bedded sandstones, coals, siltstone, and silty shale intervals that were deposited in a braided stream environment. It varies in thickness across the structure due to differential erosion, as opposed to depositional thinning. The overlying Sterling Formation is not present and has also been removed by erosion.

Unconformably underlying the Beluga sequence is approximately 6,000 feet of Miocene age Tyonek Formation, a basin-wide series of fluvial conglomerate, conglomeratic sandstone, sandstone, coal, siltstone, and shale which represent deposition in meandering streams, associated fluvial sediments and lacustrine environments. It is a major producer of both biogenic natural gas and thermogenic oil throughout the basin and is charged with gas and oil within the proposed CO area. The Tyonek can be divided into an upper section that contains gas productive sandstones and a lower interval that is predominantly oil prone; the two zones are separated by a laterally correlative shale section. The lowest section of the Lower Tyonek has been informally

referred to as the Starichkof sand, and is the oil discovery zone found in 1967 by Pennzoil in the Starichkof State #1 well.

Immediately underlying the Tyonek Formation is approximately 500 feet of the Oligocene Hemlock Conglomerate. It generally consists of medium to coarse grained, thick bedded sandstone with substantial conglomeratic beds and lenses. It was drill stem tested in the Starichkof State #1 well and recovered brackish water from two separate intervals beneath the oil/water contact. More recent drill stem tests recovered water-free oil in higher structural positions.

Underlying the Hemlock is the Paleocene to Eocene age West Foreland Formation, a roughly 1,100 feet thick sequence of volcanic tuffs and volcanoclastic sandstone and siltstone lacking oil or gas shows. It is extensively cemented by authigenic clays and zeolites and is devoid of any reservoir-quality rocks. The West Foreland unconformably overlies the Upper Cretaceous marine Matanuska Formation that is at least 3,300 feet of shale containing an abundance of *Inoceramus* shell fragments.

The offshore Cosmopolitan State #1 well was drilled in May 2013 from the Endeavor jack-up rig. The vertical well was drilled through the crest of structure, identified from 3-D seismic data, to a total Measured Depth (MD) of 7,599 feet. Multiple shallow gas zones were encountered within the Tyonek Formation by the Cosmopolitan State #1 well. Two Tyonek gas zones were tested at 4,300 feet MD and 5,500 feet MD, with maximum flow rates of 7.3 Million Cubic Feet per Day (MMCFD) and 7.2 MMCFD, respectively. Four-point tests were performed to estimate absolute open flow potential (AOF) for both gas zones. Both gas zones had a calculated AOF of 9.4 MMCFD. Both gas zones also tested no water.

The Cosmopolitan State #1 well also encountered oil bearing sands located approximately 400 feet stratigraphically higher than other previously drilled wells on structure. Two oil zones were identified within the Tyonek Formation and drill stem tested between 5,824 feet MD and 6,092 feet MD. No long term oil production tests were performed due to limited oil storage capabilities on the rig platform. Producing oil in the previously identified Starichkof and Hemlock zones was also verified by the Cosmopolitan State #1 well.

3. 303(b)(3) – Prior Exploration Activities

A general discussion of publically available information from earlier exploration activities follows.

The prospect currently referred to as Cosmopolitan is a faulted anticline identified using 2-D seismic data in the 1960s and initially tested by two wells. The first well, Pennzoil Starichkof State #1, was drilled in 1967 from an offshore location and penetrated a hydrocarbon-bearing Lower Tyonek Formation section between 6,740 and 7,005 feet MD, informally referred to as the Starichkof oil zone. A second well, Pennzoil Starichkof State Unit #1, was drilled later in 1967. In that well the Lower Tyonek reservoir interval proved wet. The Starichkof State Unit #1 well was plugged and abandoned in 1967. The Starichkof State #1 well was suspended, certified

later as capable of production in paying quantities, and is now listed by the Alaska Oil and Gas Conservation Commission as plugged and abandoned.

In November 2001, DNR approved formation of the first Cosmopolitan Unit, and additional exploration work was conducted. That year, Phillips drilled a deviated onshore well, the Hansen #1, which confirmed the previously discovered Starichkof oil zone, and found oil in the Hemlock Formation. Hansen #1 tested at flow rates averaging 380 BOPD from the Hemlock Formation and 125 BOPD from the Starichkof oil zone.

In 2003, ConocoPhillips drilled the Hansen #1A well which was a sidetrack from the Hansen #1 well bore. Hansen #1A was flow tested in the Starichkof and Hemlock zones at rates averaging 765 BOPD.

In 2005, Pioneer and ConocoPhillips acquired 3-D seismic data which better defined the geologic structure of the accumulation and identified additional drilling locations.

Pioneer took over as operator of the Cosmopolitan Unit and drilled a sidetrack from the Hansen #1A well-bore in 2007. This well, Hansen #1AL1, tested the Starichkof target at an oil rate of 285 BOPD and a gas rate of 1.15 MMCFD. Over 33,000 barrels of oil were produced from Hansen #1AL1. The well is currently completed and is anticipated to resume production after surface facilities are constructed. In 2011, Pioneer voluntarily terminated the Cosmopolitan Unit, but did not surrender leases in the former unit that had wells certified as capable of production in paying quantities.

In 2012, Buccaneer Cosmopolitan LLC acquired an interest in the leases. Buccaneer Cosmopolitan and BlueCrest jointly drilled the Cosmopolitan State #1 well in 2013.

In 2014, BlueCrest Energy acquired Buccaneer Cosmopolitan LLC and other leases associated with the prospect. BlueCrest Alaska Operating LLC is currently recognized as the operator of the project leases.

4. 303(b)(4) - Applicant's Plans for Development and Exploration

BlueCrest submitted a unit Plan of Development (Initial POD) as part of its Application. The Initial POD discusses plans for activities from September 2014 through December 2015. In 2015, BlueCrest plans to drill one vertical well offshore to delineate the southern part of the structure in ADL 384403. The well will test both the oil and gas zones. The oil horizons will be plugged and abandoned and the gas zones will be suspended, pending onshore facility construction and start-up. Also, an onshore land rig will be moved to the Hansen pad. At this location, two onshore oil producers with dual laterals wells are planned. They will be drilled into the Hemlock and Starichkof zones in ADL 18790. An onshore disposal well will also be drilled in late 2015 or early 2016. First production is expected in the first half of 2016. Long term plans include construction of facilities (including processing facility, oil storage, sea water treatment plant, warehouse and office, and a 50-man camp) and drilling up to 38 wells. There are no plans to explore ADLs 391902, 391899, and 391900 in 2015.

BlueCrest's Initial POD focuses on development of ADLs 384403 and 18790, both of which contain certified wells. DNR has concerns about the lack of discussion in the Initial POD regarding delineation of the rest of the reservoir that underlies the other leases. The Initial POD's failure to describe development plans beyond 2015 and its narrow focus limit its effectiveness. Therefore, the Initial POD is approved through December 31, 2015. The second plan of development is due 90 days before the expiration of the Initial POD, or October 2, 2015. DNR expects that the second plan of development will provide specific and detailed activities and long-range plans to execute the testing, delineation, and development of the entire reservoir. Further requirements of the plan of development are described in 11 AAC 83.343.

5. 303(b)(5) - The Economic Costs and Benefits to the State

DNR has an obligation to protect the public's interest in maximizing economic and physical recovery from the State's oil and gas resources. AS 38.05.190(a)(1(A)). Maximizing economic recovery of hydrocarbons ensures royalty revenues and increased employment opportunities over the long-term. Realization of these potential benefits requires development and production of State oil and gas leases.

The long history of exploration demonstrates that there are producible hydrocarbons in the Cosmopolitan field. More recently, Buccaneer Cosmopolitan and BlueCrest drilled the Cosmopolitan State #1 well in 2013 and discovered numerous oil and gas zones within the Upper and Lower Tyonek. BlueCrest intends to begin oil production in 2016, and if they are successful, the State will receive royalties and increased economic activity.

The primary term of three leases (ADLs 391902, 391903, and 391904) will expire August 31, 2016. These leases were sold at a special competitive sale in 2011. BlueCrest acquired 100% working interest ownership in the leases in 2014. The special work commitment terms of these leases have not been fulfilled, but it is in the State's best interest to continue to encourage development in this area. The leases are highly valued for the known hydrocarbon formations that lie beneath them. If the leases expired, valuable time and loss of revenue could result if the State had to return the leases to a lease sale. To accommodate these leases for the unit, work commitments for the leases will be eliminated, yet the intended activities will be included in a comprehensive unit plan of development. Additionally, the leases have rental rates escalating from \$50 per acre the first year to \$500 per acre for the fifth and following years or until the leases come into production or production is allocated to the leases at which time the rental rate reverts to \$3 per acre. The leases are in their fifth year. While the State has the authority to increase rental rate, it does not have the authority to reduce rental rates for oil and gas leases. In this instance, higher rental rates for these leases protects the State's interest by encouraging the operator to bring the leases into production. In the meantime, the State collects sizable rental income.

The leases proposed for the unit are written on a variety of lease forms. Including the leases in a unit will conform and modify the leases to be consistent with the Agreement, statutes, and regulations. Cosmopolitan Agreement, Article 4.2. Consistent lease provisions allow BlueCrest and the State to reduce the administrative burden of operating and regulating the unit. Conforming the terms of the older leases to the Agreement allows the State and BlueCrest to

avoid the possibility of costly and time-consuming re-litigation of some lease provisions in the earlier forms.

The leases will be conformed to provide for identical terms for royalty obligations valuation methodology, royalty in kind, and royalty in value. Paragraph 12.10 of the Unit Agreement will be amended to remove the reference to AS 38.05.180(n) and to generally refer to AS 38.05.180. Strictly referring to subsection (n) limits the State's ability to adjust rental rates.

The CO will provide economic benefits to the State by promoting development of all unitized leases as a single lease, rather than development conducted on a lease-by lease basis. Development as one lease will prevent redundant expenditures and activities focused on retaining lease ownership. Although leases included in the unit will no longer be available for competitive development, the Division will ensure reasonable development and production through review and approval of future plans of development.

B. 11 AAC 83.303(a) Decision Criteria

State regulation provides that a unit plan will be approved if the commissioner finds that it will promote the conservation of natural resources, prevent economic and physical waste, provide for the protection of all parties in interest including the State, and that it is necessary and advisable in the public interest. 11 AAC 83.303(a). This section addresses those decision criteria.

1. 303(a)(1) – Promote the Conservation of all Natural Resources

The DNR commissioner may approve an agreement to develop leases for the purpose of conserving the natural resources in of all or a part of an oil or gas pool, field, or like area. AS 38.05.180(p). In this context, “conservation” means “maximizing the efficient recovery of oil and gas and minimizing the adverse impacts on the surface and other resources.” 11 AAC 83.395(9). The unitization of oil and gas reservoirs or accumulations and the formation and expansion of unit areas to develop hydrocarbon-bearing reservoirs or accumulations are well-accepted means of hydrocarbon conservation. Unitization, with development occurring under the terms of a unit agreement, can promote efficient evaluation and development of the State's resources, and minimize impacts to the area's cultural, biological, and environmental resources. The CO Agreement provides the framework for maximizing efficient recovery of oil and gas within the proposed unit. The leases in the proposed unit also remain subject to mitigation measures, as well as a variety of State and federal regulatory requirements, that are designed to protect other natural resources within the unit area.

2. 303(a)(2) - Prevention of Economic and Physical Waste

Unitization, as opposed to activity on a lease-by-lease basis, may prevent economic and physical waste. Economic waste is often referred to as the drilling of wells in excess of the number necessary for the efficient recovery or delineation of the oil and gas in place. Physical waste, among other things, includes the inefficient, excessive, or improper use of, or unnecessary dissipation of, reservoir energy. After unitization, the unit operator can design and locate

facilities, and pressure maintenance and secondary recovery procedures to maximize recovery and minimize environmental impacts, without regard to lease boundaries.

Unitization may also prevent economic and physical waste by eliminating redundant expenditures for a given level of production, or by avoiding loss of ultimate recovery with the adoption of a unified reservoir management plan. Annual approval of the CO development activities as described in future plans of development must also provide for the prevention of economic and physical waste.

3. 303(a)(3) - Protection of all Parties of Interest, Including the State

Unitization protects correlative rights relative to non-unitized development and production operations by providing for an equitable division of costs and allocation of hydrocarbon shares among the leases in the unit.

Future annually approved plans of development will provide for continued review and approval of BlueCrest's plans to develop the CO in a manner that will maximize economic and physical recovery. While BlueCrest is currently the single working interest owner in the proposed unit, the current CO Agreement, which is for a single working interest owner, binds BlueCrest, and any future CO working interest owners to execute an approved multiple working interest owner unit agreement. The Agreement ensures protection of the interest of all working interest owners and the State.

The CO formation protects the economic interests of BlueCrest and the State. The formation promotes the State's economic interests because hydrocarbon recovery will be maximized and additional production-based revenue will be derived from the increased production. Diligent development under a single, approved unit plan promotes the interests of the State and the CO lessees. Operating under the CO Agreement provides for accurate reporting and record keeping, State approval of plans of development, operating procedures, royalty settlement, in-kind taking, and emergency storage of oil and gas, all of which will further the State interests.

4. 303(a) – Necessary or Advisable in the Public Interest

The people of Alaska have an interest in the development of the State's oil and gas resources to maximize the economic and physical recovery of the resources. AS 38.05.180(a). It is further in the State's best interest to encourage assessment of oil and gas resources, recognize the costs of exploring in varied geographic regions, and minimize the adverse impact of exploration, development, production, and transportation activity. AS 38.05.180(a)(2). On balance, the Application promotes the public interest.

V. FINDINGS AND DECISION

The Conservation of All Natural Resources

1. Creation of the CO will provide for exploration and development of the unitized area(s) under the Agreement and will maximize the efficient recovery of oil and gas and

minimize the adverse impacts on the surface and other resources, including hydrocarbons, gravel, sand, water, wetlands, and valuable habitat.

2. The unitized development and operation of the leases will reduce the amount of land and fish and wildlife habitat that would otherwise be disrupted by individual lease development. This reduction in environmental impacts and preservation of subsistence access is in the public interest.
3. There is potential for environmental impacts associated with development. All unit development must proceed according to an approved plan of development. Additionally, before undertaking any specific operations, the Unit Operator must submit a unit Plan of Operations to the Division and other appropriate State and local agencies for review and approval. Drilling or development operations will not begin any until all agencies have granted the required permits. DNR may condition its approval of a unit Plan of Operations and other permits on performance of mitigation measures in addition to those in the modified leases and the Agreement, if necessary or appropriate. Compliance with mitigation measures will minimize, reduce or completely avoid adverse environmental impacts.

The Prevention of Economic and Physical Waste

1. BlueCrest submitted geological, geophysical and engineering data to the Division in support of its Application. Division technical staff determined that the most of the CO area encompasses all or part of one or more oil and gas reservoir(s) and potential hydrocarbon accumulations.
2. The available geological, geophysical and engineering data justify including the proposed lands, as described in Section IV, A.2. of this decision.

The Protection of All Parties in Interest, Including the State

1. The formation of the CO, on balance, promotes the conservation of all natural resources, including hydrocarbons; and in the event of a commercial discovery of hydrocarbons, the CO Agreement and approved plans of development thereunder will promote the prevention of economic and physical waste.
2. The Division complied with the public notice requirements of 11 AAC 83.311.
3. BlueCrest Energy, Inc. is the designated Unit Operator of the CO and has reasonable effective control of operations. 11 AAC 83.331(b).
4. The Agreement, conditioned on the performance of approved plans of development, adequately and equitably protects the public interest.
5. The Agreement meets the requirements of 11 AAC 83.303.

6. The Agreement provides for expansion and contraction of the unit area in the future, as warranted by data obtained by exploration or otherwise. Therefore, the Agreement protects the public interest, the rights of the parties, and the correlative rights of adjacent landowners.
7. The Agreement will not diminish access to public and navigable waters beyond those limitations (if any) imposed by law or already contained in the oil and gas leases covered by the Agreement.
8. ADLs 391899 and 391900 are not included in the unit. Both leases expire August 31, 2019.
9. ADL 391903 is segregated as to lands committed and not committed to the CO. 11 AAC 83.373(a). Upon unitization that portion of ADL 391903 not committed to the unit is relinquished.
10. The following table summarizes the leases approved for inclusion in the CO. Attachments 3 and 4 describe the leases and the unit area in more detail.

ADL	Acres	Working Interest Ownership and %	State Royalty Interest %	Lease Form	Lease Effect. Date	Lease Expiry Date
391902 Tract 1	1,109.14	BlueCrest Energy, Inc., 100%	12.5	DOG 200604 (rev. 4/11)	9/1/11	8/31/16
384403 Tract 2	2758.69	BlueCrest Energy, Inc., 100%	12.5	DOG 9208	1/1/95	certified well, 3/3/05
391903 (segregated) Tract 3	2,560.00	BlueCrest Energy, Inc., 100%	12.5	DOG 200604 (rev. 4/11)	9/1/11	8/31/16
18790 Tract 4	3,959.36	BlueCrest Energy, Inc., 100%	12.5	DL-1 (rev. 4/61)	9/1/62	certified well, 8/2/67
391904 Tract 5	4,035.72	BlueCrest Energy, Inc., 100%	12.5	DOG 200604 (rev. 4/11)	9/1/11	8/31/16

11. The leases included in the proposed unit are on different lease forms with varying terms. To cohesively administer the unit, lease language will be modified and amended to conform to the extent allowable. The Division makes the following changes:
 - ADL 18790, Form No. DL-1 (rev. 4/61):
 - Delete paragraph 10, (Minimum Royalty)
 - Delete paragraph 12, (Discovery Royalty)

- Delete paragraph 14, (RIK). Replace with paragraph 38 (RIK) from Form No. DOG 9208
 - Delete paragraph 15, (RIV). Replace with paragraph 37 (RIV) from Form No. DOG 9208
 - Add paragraph 36 (Value) from Form No. 9208
- ADL 384403, Form No. DOG 9208
 - Add to paragraph 36(b), (Value) “actual and” to the reasonable costs of transportation
 - Amend paragraph 38(a) and (c), (RIK) to change 90 days’ notice to 50 days’ notice to the lessee
 - ADLs 391902, 391903, and 391904, Form No. DOG 200604 (rev. 4/2011)
 - Amend paragraph 5(a), (Rentals) to remove the reference to paragraph 9 as follows, “Beginning in the year after the year in which the lessee brings a well into production, the lessee shall pay rentals at the rate established in AS 38.05.180(n).”
 - Delete paragraph 9, (Work Commitments)
12. Paragraph 12.10 of the Unit Agreement is amended as follows: To the extent that the rental provision of a Lease is inconsistent with AS 38.05.180, the Lease is amended to make it consistent with AS 38.05.180. If a Lease requires payment of minimum royalty, the Lease is amended to delete that minimum royalty obligation.
13. The Initial POD expires December 31, 2015. BlueCrest shall submit to the Division the second plan of development at least 90 days before the expiration of the Initial POD, or by October 2, 2015.
14. BlueCrest will submit revised Exhibits A and B within 60 days of the date of this decision. The exhibits will reflect the approved unit boundary and associated lease information.

For the reasons discussed in this Findings and Decision, I hereby approve, in part, the Cosmopolitan Unit formation, as described in Attachments 3 and 4. The Cosmopolitan Unit is effective July 1, 2015.

A person affected by this decision may appeal it, in accordance with 11 AAC 02. Any appeal must be received within 20 calendar days after the date of "issuance" of this decision, as defined in 11 AAC 02.040(c) and (d) and may be mailed or delivered to Mark Myers, Commissioner, Department of Natural Resources, 550 W. 7th Avenue, Suite 1400, Anchorage, Alaska 99501; faxed to 1-907-269-8918, or sent by electronic mail to dnr.appeals@alaska.gov. This decision immediately takes effect. An eligible person must first appeal this decision in accordance with 11

AAC 02 before appealing this decision to Superior Court. A copy of 11 AAC 02 may be obtained from any regional information office of the Department of Natural Resources.


Corri A. Feige, Director
Division of Oil and Gas


Date

VI. ATTACHMENTS

1. Cosmopolitan Unit Proposed Unit Lands Exhibit A
Description of lands within the proposed unit
2. Cosmopolitan Unit Proposed Unit Area Exhibit B
Map of proposed unit area
3. Cosmopolitan Unit List of Leases
Description of lands within the approved unit
4. Cosmopolitan Unit Map
Map of proposed area and approved unit area

ATTACHMENT 1

Cosmopolitan Unit Proposed Unit Lands Exhibit A
Description of lands within the proposed unit

EXHIBIT A

Blue Crest Energy, Inc.; Cosmopolitan Unit Application								
Lease No.	Unit Tract No.	Township/Range/Section	Legal Description	Tract Acreage	Royalty & ORRI Owners	Percentage	Working Interest Owner	Percentage
ADL 391902	1	Township 3 South, Range 15 West, S.M., AK		1,109.14	STATE OF ALASKA	12.500000	BlueCrest Energy, Inc.	100.00
		Section 15:	Protracted, All, 640.00 acres;		Apache Alaska Corporation	3.500000		
		Section 16:	Protracted, All within the Computed Alaska Seaward Boundary, listed as "State Acreage" on the Alaska Seaward Boundary Diagram approved by the state on February 4, 1993, 466.64 acres;		Subtotal Royalty Interests	16.000000		
		Section 17:	Protracted, All within the Computed Alaska Seaward Boundary, listed as "State Acreage" on the Alaska Seaward Boundary Diagram approved by the state on February 4, 1993, 2.50 acres;			100.000000		
					Net Revenue Interest for ADL 391902	84.000000		
			Containing approximately 1,109.14 acres					
Lease No.	Unit Tract No.	Township/Range/Section	Legal Description	Tract Acreage	Royalty & ORRI Owners	Percentage	Working Interest Owner	Percentage
ADL 384403	2	Township 3 South, Range 15 West, S.M., AK		2,758.69	STATE OF ALASKA	12.500000	BlueCrest Energy, Inc.	100.00
		Section 20:	Protracted, All within the computed Alaska seaward boundary, listed as "State Acreage" on Alaska' seaward boundary diagram approved by the State on February 4, 1993, 203.80 acres;		SPC, LLC	1.333330		
		Section 21:	Protracted, All, 640.00 acres;		Briggs V. Nesmith	0.175000		
		Section 28:	Protracted, All, 640.00 acres;		Blocker Interests, Ltd.	0.991670		
		Section 29:	Protracted, All within the computed Alaska seaward boundary, listed as "State Acreage" on Alaska' seaward boundary diagram approved by the State on February 4, 1993, 419.20 acres;		Robert C. Warthen	0.166665		
		Section 32:	Protracted, All within the computed Alaska seaward boundary, listed as "State Acreage" on Alaska' seaward boundary diagram approved by the State on February 4, 1993, 419.20 acres;		Robert A. Chaffin	0.262600		
		Section 33:	Protracted, W/2, 320.00 acres;		Danny S. Davis	0.320730		
					Brian L. Crouch	0.166665		
			Containing approximately 2,758.69 acres		Flintlock Ventures, Limited Partnership	0.408330		
					Chase Morse Living Trust	0.175000		
					ConocoPhillips Alaska, Inc.	2.000000		
					Cook Inlet Energy, LLC	0.437500		
					Donkel Oil & Gas, LLC	0.500000		

					Buccaneer Royalties	0.875000		
					Subtotal Royalty Interests	20.312490		
						100.000000		
					Net Revenue Interest for ADL 384403	79.687510		

Lease No.	Unit Tract No.	Township/Range/Section	Legal Description	Tract Acreage	Royalty & ORRI Owners	Percentage	Working Interest Owner	Percentage
ADL 391903	3	Township 3 South, Range 15 West, S.M., AK		2,560.00	STATE OF ALASKA	12.500000	BlueCrest Energy, Inc.	100.00
		Section 22:	Protracted, All, 640.00 acres;		Apache Alaska Corporation	3.500000		
		Section 23:	Protracted, All, 640.00 acres;		Subtotal Royalty Interests	16.000000		
		Section 26:	Surveyed, Fractional, Lots 2 through 4, 11.13 acres;			100.000000		
		Section 26:	Unsurveyed, All tide and submerged lands, 628.87 acres;		Net Revenue Interest for ADL 391903	84.000000		
		Section 27:	Protracted, All, 640.00 acres;					
			Containing approximately 2,560.00 acres.					

Lease No.	Unit Tract No.	Township/Range/Section	Legal Description	Tract Acreage	Royalty & ORRI Owners	Percentage	Working Interest Owner	Percentage
ADL 018790	4	Township 003 South, Range 015 West, S.M., AK		3,959.36	STATE OF ALASKA	12.500000	BlueCrest Energy, Inc.	100.00
		Section 33:	E2, 320.00 acres;		Osler C. Hutson	0.187500		
		Section 34:	Protracted, All, 640.00 acres;		Jo Anne L. Best	0.187500		
		Section 35:	Fraction, (All Shorelands (If any) tidelands, and submerged lands, including such shorelands (if any), and tidelands as may underlie the portion of Stariski Creek that runs through this section, 479.99 acres;		Metro National Bank	0.375000		
		Township 004 South, Range 015 West, S.M., AK			Nugent T. Brasher, Jr.	0.093750		
		Section 2:	Fraction, (All tidelands and submerged lands), 378.98 acres;		Jerry F. Brasher	0.093750		
		Section 3:	All, 640.00 acres;		Edith E. Brasher	0.187500		
		Section 4:	All, 640.00 acres;		Melanie Mathis	0.093750		
		Section 10:	All, 640.00 acres;		Marilyn F. Mathis	0.093750		
		Section 11:	Fraction, (All tidelands and submerged lands), 220.39 acres;		Machelle Mathis Knight	0.093750		
					Melissa Mathis Caroll	0.093750		
			Containing approximately 3,959.36 acres		Louisiana Land and Exploration Company	0.500000		
					Devon Energy Production Company, L.P.	1.000000		
					XH, LLC	0.441170		
					Mobil E&P	2.625000		
					Rosewood Resources, Inc.	0.496320		
					ConocoPhillips Alaska, Inc.	2.000000		
					Cook Inlet Energy, LLC	0.418750		

					Donkel Oil & Gas, LLC	0.500000		
					Buccaneer Royalties	<u>0.875000</u>		
					Subtotal Royalty Interests	22.856240		
						100.000000		
					Net Revenue Interest for ADL 018790	77.143760		

Lease No.	Unit Tract No.	Township/Range/Section	Legal Description	Tract Acreage	Royalty & ORRI Owners	Percentage	Working Interest Owner	Percentage
ADL 391904	5	Township 004 South, Range 15 West, S.M., AK		4,035.72	STATE OF ALASKA	12.500000	BlueCrest Energy, Inc.	100.00
		Section 5:	Protracted, All tide and submerged land within the Computed Seaward Boundary, listed as "State Acreage" on Alaska's Seaward Boundary Diagram approved February 9, 1993, 634.15 acres;		Apache Alaska Corporation	<u>3.500000</u>		
		Section 6:	Protracted, All tide and submerged land within the Computed Seaward Boundary, listed as "State Acreage" on Alaska's Seaward Boundary Diagram approved February 9, 1993, 52.73 acres;		Subtotal Royalty Interests	16.000000		
		Section 7:	Protracted, All tide and submerged land within the Computed Seaward Boundary, listed as "State Acreage" on Alaska's Seaward Boundary Diagram approved February 9, 1993, 258.35 acres;			100.000000		
		Section 8:	Protracted, All, 640.00 acres;		Net Revenue Interest for ADL 391904	84.000000		
		Section 9:	Protracted, All, 640.00 acres;					
		Section 16:	Protracted, All, 640.00 acres;					
		Section 17:	Protracted, All, 640.00 acres;					
		Section 18:	Protracted, All tide and submerged land within the Computed Seaward Boundary, listed as "State Acreage" on Alaska's Seaward Boundary Diagram approved February 9, 1993, 530.49 acres;					
			Containing approximately 4,035.72 acres.					

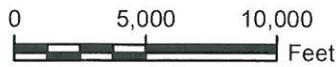
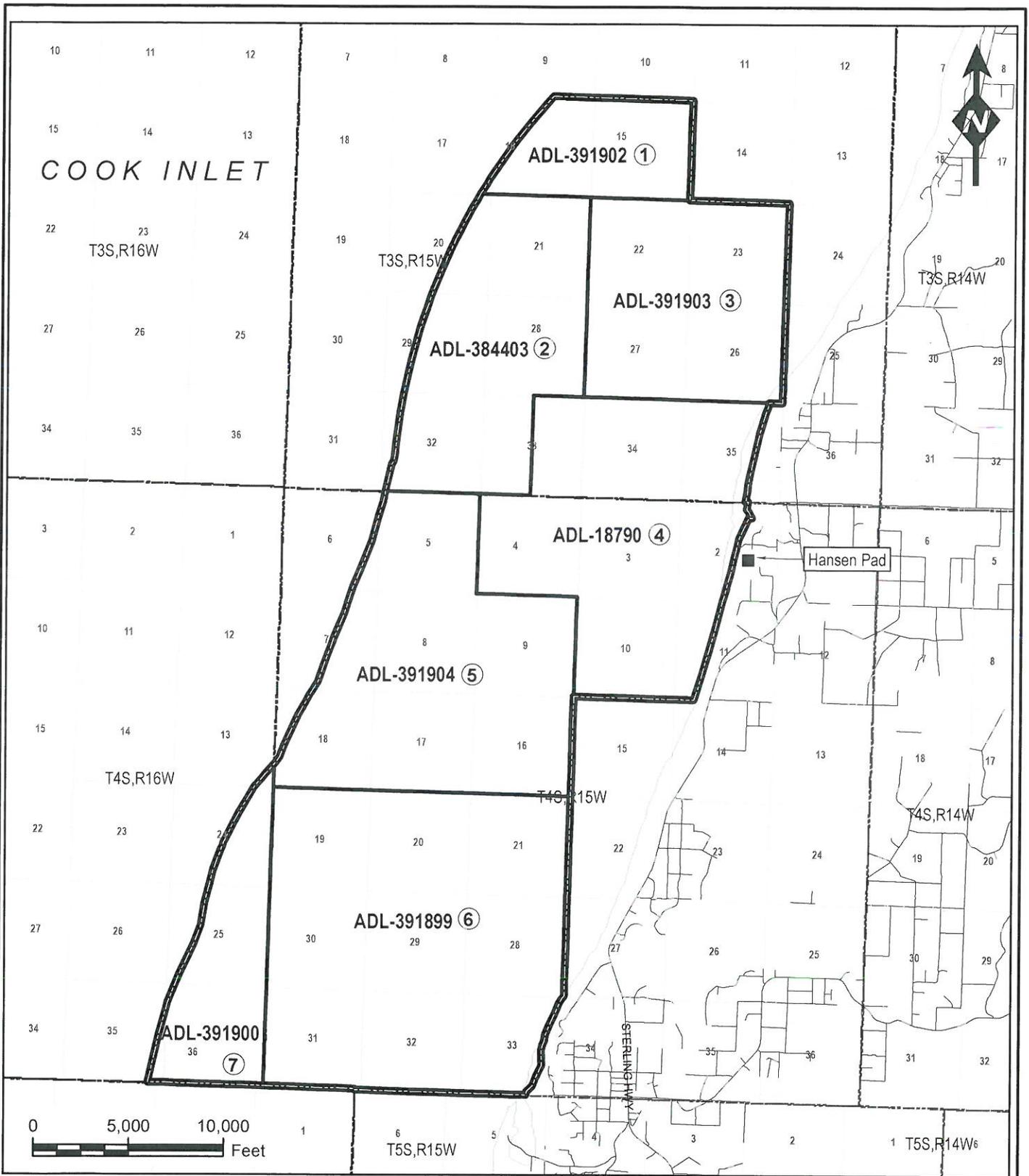
Lease No.	Unit Tract No.	Township/Range/Section	Legal Description	Tract Acreage	Royalty & ORRI Owners	Percentage	Working Interest Owner	Percentage
ADL 391899	6	Township 004 South, Range 15 West, S.M., AK		5,589.08	STATE OF ALASKA	12.500000	BlueCrest Energy, Inc.	100.00
		Section 19:	Protracted, All, 622.00 acres;		Apache Alaska Corporation	<u>3.500000</u>		
		Section 20:	Protracted, All, 640.00 acres;		Subtotal Royalty Interests	16.000000		
		Section 21:	Protracted, All, 640.00 acres;			100.000000		
		Section 28:	Surveyed, Fractional, Lot 1, 2.69 acres;		Net Revenue Interest for ADL 391889	84.000000		
		Section 28:	Unsurveyed, All tide and submerged land, 637.31 acres;					
		Section 29:	Protracted, All, 640.00 acres;					
		Section 30:	Protracted, All, 624.00 acres;					

		Section 31:	Protracted, All, 619.00 acres;					
		Section 32:	Protracted, All, 640.00 acres;					
		Section 33:	Surveyed, Fractional, Lots 1 and 2, 32.06 acres;					
		Section 33:	Unsurveyed, All tide and submerged land, 492.02 acres;					
			Containing approximately 5,589.08 acres.					
Lease No.	Unit Tract No.	Township/Range/Section	Legal Description	Tract Acreage	Royalty & ORRI Owners	Percentage	Working Interest Owner	Percentage
ADL 391900	7	Township 004 South, Range 16 West, S.M., AK		1,464.41	STATE OF ALASKA	12.500000	BlueCrest Energy, Inc.	100.00
		Section 13:	Protracted, All, as listed as State acreage on Alaska's Seaward Boundary Diagram approved by the State on February 4, 1993, 10.35 acres;		John M. Martineck	2.250000		
		Section 24:	Protracted, All, as listed as State acreage on Alaska's Seaward Boundary Diagram approved by the State on February 4, 1993, 253.99 acres;		Kenneth W. Sanders	2.250000		
		Section 25:	Protracted, All, as listed as State acreage on Alaska's Seaward Boundary Diagram approved by the State on February 4, 1993, 517.27 acres;		Buccaneer Royalties	<u>0.875000</u>		
		Section 35:	Protracted, All, as listed as State acreage on Alaska's Seaward Boundary Diagram approved by the State on February 4, 1993, 43.58 acres;		Subtotal Royalty Interests	17.875000		
		Section 36:	Protracted, All, as listed as State acreage on Alaska's Seaward Boundary Diagram approved by the State on February 4, 1993, 639.22 acres;			100.000000		
					Net Revenue Interest for ADL 391900	82.125000		
			Containing approximately 1,464.41 acres.					
			Total Unit Acreage	21,476.40				

ATTACHMENT 2

Cosmopolitan Unit Proposed Unit Area Exhibit B

Map of proposed unit area



■ Hansen Pad

▭ Proposed Cosmopolitan Unit

▭ Leases

— Roads

Ⓝ Tract Reference

RECEIVED

MAR 17 2015

DIVISION OF OIL AND GAS

BLUECREST ENERGY, INC.

COSMOPOLITAN UNIT APPLICATION

PLAT OF SUBJECT LANDS



EXHIBIT
B

Projection: NAD 1983 State Plane Alaska 4 FIPS 5004 (Feet), TM
Meridian: Seward Meridian
Borough: Kenai Peninsula

ATTACHMENT 3

Cosmopolitan Unit List of Leases

Description of lands within the approved unit

Lease No.	Unit Tract No.	Lease Date	Township/Range/Section	Legal Description	Tract Acreage
ADL 391902	1	9/1/2011	Township 3 South, Range 15 West, S.M., AK		1,109.14
			Section 15:	Protracted, All, 640.00 acres;	
			Section 16:	Protracted, All within the Computed Alaska Seaward Boundary, listed as "State Acreage" on the Alaska Seaward Boundary Diagram approved by the state on February 4, 1993, 466.64 acres;	
			Section 17:	Protracted, All within the Computed Alaska Seaward Boundary, listed as "State Acreage" on the Alaska Seaward Boundary Diagram approved by the state on February 4, 1993, 2.50 acres;	
ADL 384403	2	1/1/1995	Township 3 South, Range 15 West, S.M., AK		2,758.69
			Section 20:	Protracted, All within the computed Alaska seaward boundary, listed as "State Acreage" on Alaska' seaward boundary diagram approved by the State on February 4, 1993, 203.80 acres;	
			Section 21:	Protracted, All, 640.00 acres;	
			Section 28:	Protracted, All, 640.00 acres;	
			Section 29:	Protracted, All within the computed Alaska seaward boundary, listed as "State Acreage" on Alaska' seaward boundary diagram approved by the State on February 4, 1993, 419.20 acres;	
			Section 32:	Protracted, All within the computed Alaska seaward boundary, listed as "State Acreage" on Alaska' seaward boundary diagram approved by the State on February 4, 1993, 419.20 acres;	
			Section 33:	Protracted, W/2, 320.00 acres;	
ADL 391903 (segregated)	3	9/1/2011	Township 3 South, Range 15 West, S.M., AK		2,560.00
			Section 22:	Protracted, All, 640.00 acres;	
			Section 23:	Protracted, All, 640.00 acres;	
			Section 26:	Surveyed, Fractional, Lots 2 through 4, 11.13 acres;	
			Section 26:	Unsurveyed, All tide and submerged lands, 628.87 acres;	
			Section 27:	Protracted, All, 640.00 acres;	
ADL 018790	4	9/1/1962	Township 003 South, Range 015 West, S.M., AK		3,959.36
			Section 33:	E2, 320.00 acres;	
			Section 34:	Protracted, All, 640.00 acres;	
			Section 35:	Fraction, (All Shorelands (if any) tidelands, and submerged lands, including such shorelands (if any), and tidelands as may underlie the portion of Stariski Creek that runs through this section, 479.99 acres;	
			Township 004 South, Range 015 West, S.M., AK		
			Section 2:	Fraction, (All tidelands and submerged lands), 378.98 acres;	
			Section 3:	All, 640.00 acres;	
			Section 4:	All, 640.00 acres;	
			Section 10:	All, 640.00 acres;	
			Section 11:	Fraction, (All tidelands and submerged lands), 220.39 acres;	

ADL 391904	5	9/1/2011	Township 004 South, Range 15 West, S.M., AK		4,035.72
			Section 5:	Protracted, All tide and submerged land within the Computed Seaward Boundary, listed as "State Acreage" on Alaska's Seaward Boundary Diagram approved February 9, 1993, 634.15 acres;	
			Section 6:	Protracted, All tide and submerged land within the Computed Seaward Boundary, listed as "State Acreage" on Alaska's Seaward Boundary Diagram approved February 9, 1993, 52.73 acres;	
			Section 7:	Protracted, All tide and submerged land within the Computed Seaward Boundary, listed as "State Acreage" on Alaska's Seaward Boundary Diagram approved February 9, 1993, 258.35 acres;	
			Section 8:	Protracted, All, 640.00 acres;	
			Section 9:	Protracted, All, 640.00 acres;	
			Section 16:	Protracted, All, 640.00 acres;	
			Section 17:	Protracted, All, 640.00 acres;	
			Section 18:	Protracted, All tide and submerged land within the Computed Seaward Boundary, listed as "State Acreage" on Alaska's Seaward Boundary Diagram approved February 9, 1993, 530.49 acres;	
				Total Unit Acreage	14,422.91

ATTACHMENT 4

Cosmopolitan Unit Map

Map of proposed area and approved unit area



Approved unit area

COOK INLET

T3S,R16W

T3S,R15W

T3S,R14W

T4S,R16W

T4S,R15W

T4S,R14W

T5S,R15W

T5S,R14W

ADL-391902 ①

ADL-391903 ③

ADL-384403 ②

ADL-18790 ④

ADL-391904 ⑤

ADL-391899 ⑥

ADL-391900 ⑦

Hansen Pad

STERLING HWY



■ Hansen Pad

▭ Proposed Cosmopolitan Unit

▭ Leases

— Roads

① Tract Reference

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MAR 17 2015

DIVISION OF OIL AND GAS

BLUECREST ENERGY, INC.

COSMOPOLITAN UNIT APPLICATION

PLAT OF SUBJECT LANDS



EXHIBIT

B

Projection: NAD 1983 State Plane Alaska 4 FIPS 5004 (Feet), TM
Meridian: Seward Meridian
Borough: Kenai Peninsula