

Findings and Decision of the Director
of the Division of Oil and Gas

**APPROVAL OF THE
EXPANSION OF THE NICOLAI CREEK UNIT AND FORMATION OF THE
WEST BELUGA AND WEST TYONEK PARTICIPATING AREAS**

Under a Delegation of Authority
from the Commissioner of the State Of Alaska
Department of Natural Resources

May 5, 2010

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I. DECISION SUMMARY

Aurora Gas, LLC (Aurora), as Nicolai Creek Unit (NCU) Operator applied to expand the existing NCU and to form the West Participating Area (WPA) (Application). The State of Alaska Department of Natural Resources (DNR), Division of Oil and Gas (Division) approves the expansion of the NCU and the formation of the West Beluga PA (WBPA) and West Tyonek PA (WTPA).

The expanded NCU includes the minimum area required to include all or part of one or more oil or gas reservoirs. Aurora submitted geotechnical, engineering, and economic data that justify expansion of the NCU and the formation of the WBPA and the WTPA. The WBPA and WTPA include the areas “reasonably known to be underlain by hydrocarbons and known or reasonably estimated ... to be capable of producing or contributing to production of hydrocarbons in paying quantities.” 11 AAC 83.351(a).

The Division approves the expansion of the NCU, as described in Nicolai Creek Unit Agreement (NCUA) Exhibits A and B, and the WBPA and WTPA.

II. APPLICATION

The Division received the Application on December 28, 2009. Aurora requests the expansion of the NCU to include ADL 391472 in its entirety as described in Exhibit A and B, (Attachments 1 & 2) and to include portions of ADL 391472 and ADL 17598 in the WPA as described in Exhibits A and B-4 (Attachments 1 & 3). ADL 391472 was originally a federal lease, AA-034161, transferred to the State June 11, 2009. ADL 17598 is already committed in its entirety to the NCU and committed in part to the Nicolai Creek Unit South PA and Beluga PA.

The Application contained confidential geologic, geophysical, engineering and economic data in support of the expansion and participating area formation. The Division determined that the data submitted with the Application was sufficient to consider approval of the Application under 11 AAC 83.356, 11 AAC 83.351, and 11 AAC 83.371. The Division deemed the Application complete on February 16, 2010.

The Application requested that a single PA be formed that would produce from both the Beluga and Tyonek formations. Production from the Beluga Undefined Gas Pool is commingled with production from the South Undefined Gas Pool (Tyonek) in the Nicolai Creek 11 (NC 11) well as approved by the March 2, 2010 Alaska Oil and Gas Conservation Commission (AOGCC) Conservation Order Number 627 (CO 627). CO 627 provides that production from the well will be allocated 70 percent to the Beluga Undefined Gas Pool and 30 percent to the South Undefined Gas Pool. The Division proposed and Aurora agreed that each gas pool be approved as a separate participating area, the West Beluga PA and the West Tyonek PA. Because it is likely that the Tyonek will quickly deplete to its economic limit, administration of the participating areas will be simplified by establishing separate participating areas.

The public comment period closed on March 22, 2010. No comments were received.

III. DISCUSSION OF DECISION CRITERIA

The DNR Commissioner (Commissioner) reviews applications related to units including expansion of units and the formation of participating areas, under 11 AAC 83.303--11 AAC 83.395. By memorandum dated September 30, 1999, the Commissioner approved a revision of Department Order 003 and delegated this authority to the Division Director (Director). The Division's review of the Application is based on the criteria set out in 11 AAC 83.303 (a), (b) and (c). Subsection (c), paragraph (4) directs the Commissioner to consider the criteria in subsections (a) and (b) when evaluating an approval of a Participating Area (PA). A discussion of the subsection (b) criteria, as they apply to the application, is set out directly below, followed by a discussion of the subsection (a) criteria.

A. Decision Criteria considered under 11 AAC 83.303(b)

1. The Environmental Costs and Benefits of Unitized Exploration and Development

Approval of the expansion of the NCU and the formation of the WBPA and WTPA has no direct environmental impact. This Decision is an administrative action and does not authorize any on-the-ground activity. Potential effects on the environment are analyzed when permits to conduct exploration or development in the unit area are reviewed. Approval of this expansion does not convey any authority to conduct any operations on the surface within the unit area.

A Unit Operator must obtain approval of a Plan of Operations from the State, and other permits from various agencies before drilling a well or wells or initiating development activities. DNR considered environmental issues in the lease sale process. Aurora has obtained the required permits for the NC 11 well and is operating under an approved plan of operations and producing the well as a lease operation.

2. The Geological and Engineering Characteristics of the Expanded NCU and the Proposed WBPA and WTPA:

A PA may be formed to include acreage reasonably known to be underlain by hydrocarbons and known or reasonably estimated through use of geological, geophysical, or engineering data to be capable of producing or contributing to the production of hydrocarbons in paying quantities. 11 AAC 83.351(a).

A. Geologic Setting

The reservoir sandstones of the NCU belong to the Miocene/Oligocene Beluga and Tyonek Formations. Deposition of these fluvial sands occurred within the Cook Inlet Basin, a feature characterized as an elongate, northeast trending, fault-bounded forearc basin that extends from the Matanuska Valley south along the Alaska Peninsula. The northwest region of the Cook Inlet basin is defined by a series of tight anticlines and associated structures that deform the Tertiary section and provide traps for both oil and gas. These features are part of a transpressional regime that results from strain transfer between the Castle Mountain Fault to the north and Bruin Bay Fault to the west. The structures manifested within the NCU have evolved through such processes. Subsurface data in the NCU area suggest a combination structural and stratigraphic trap.

The WBPA is restricted to the sandstone reservoirs within the Lower Beluga Formation. Individual sands have been assigned names based on standardized industry palynological zonation. These sandstones are within the Tsuga 2 palynological zone and have been subdivided using an appropriate numeric designation (2-1.1, 2-1.2, 2-2.1, 2-2.2, 2-2.3, 2-4.2, 2-5.1, 2-6.1, 2-7.1 and 2-8.1). The WTPA is restricted to the sandstone reservoirs of the Upper Tyonek Formation. These sandstones are within the Carya 2 palynological zone and have been subdivided using an appropriate numeric designation (2-1.1, 2-1.2, 2-2.1, 2-2.2, 2-2.3, 2-4.2, 2-5.1, and 2-6.1).

B. Geological and Engineering Characteristics

The Beluga and Tyonek reservoirs appear to be stacked sandstone bodies that are discontinuous in nature. Wireline log and mud log data show that the Beluga Tsuga sands are separated from the Tyonek Carya sands by 160 feet of tight (low permeability) sandstone and siltstone, carbonaceous claystone, clay, and two coal seams. The reservoir areas are controlled by structure and sandstone distribution; are confirmed by seismic, well data, and test data; and are summed together to define the outline of the respective WBPA and WTPA.

The NC 11 is located within the WBPA and the WTPA. In September 2009, the NC 11 was completed with 5-1/2" casing to 3,589 feet MD and plugged back to 3,509 feet MD. The Beluga Tsuga 2-5 thru 2-8 sands were perforated from 920 feet to 2,099 feet, and the Tyonek Carya 2-1 sands were perforated from 2,260 feet to 2,362 feet. The Beluga and Tyonek sands are presently separated within the wellbore by a mechanical-set packer at 2,175 feet.

Seismic mapping and pressure test data demonstrate that the Beluga Tsuga sands in the NC 11 are separate from the Beluga Tsuga sands in the Nicolai Creek 9 well (NC 9). The pressure data indicates the NC 9 to be partially depleted below 1,300 feet. Bottom hole pressure at 1,384 feet was estimated from surface pressure on September 22, 2009 to be about 263 psia, (3.65 ppg gradient). The NC 11 showed no significant depletion at correlative depths, except for a slight depletion at 1,660 feet to 1,673 feet where the MDT log found an 8.0 – 8.13 ppg gradient versus 9.0+ ppg elsewhere in the common depths.

The pressure tests in NC 11 indicated average bottom-hole pressure of 1,113 psia (9.45 ppg gradient) in the Tyonek Carya 2-1.1 and 1,138 psi in the Carya 2-1.2 (9.3 ppg gradient). Offset well Nicolai Creek 1B pressure in Carya 2-1.2 is estimated at 346 psia (2.9 ppg), and at NC 2 the Carya 2-1.1 and 2-1.2 are 315 psia (2.6-2.8 ppg gradient) estimated from surface pressures in May 2009 and September 2009, respectively. NC 11 does not appear to be in pressure communication with NC 1B or NC 2 Carya intervals.

AOGCC CO 627 approved the commingling of production from the Tyonek Lower Completion (Carya 2-1 sands), Beluga Lower Middle Completion (Tsuga 2.7 and 2.8 sands), and Beluga Upper Middle Completion (Tsuga 2-6 and 2-8 sands). In the same Order, the AOGCC ruled against comingling Beluga-Tsuga 2-5 and 2-6 sands with the other Beluga and Tyonek sands at this time. Aurora stated that on the basis of reserves, production allocation would be approximately 30% Tyonek-Carya sands and 70% Beluga-Tsuga sands.

C. Conclusions

Different methodologies to define the PA boundary were discussed by Aurora and the Division. Aurora had proposed that the boundaries of the WBPA and the WTPA be based on net pay maps derived from a seismic interpretation of structure. Upon further discussion with Aurora, the Division proposed to derive the areal extent of the WBPA and WTPA with a methodology similar to that used for the NCU South and Beluga PAs. In those PAs, as in the WBPA and WTPA, seismic data does not necessarily provide a definitive picture of fault locations and other reservoir characteristics due to the presence of gas throughout the area. The methodology agreed upon for the WBPA and WTPA uses reservoir characteristics such as permeability, porosity and pressure and well production data such as rate and pressure, to determine, using a material balance calculation, the drainage radius of the well. That radius is then centered on the producing zones of the well and an areal extent, legally described in quarter-quarter-quarter sections (10 acre aliquot parts), is superimposed to describe the areal extent of the participating areas.

3. The Plan of Development for the Participating Area

The Nicolai Creek 36th Plan of Development (NCU 36th POD) described the activities that Aurora would complete upon successful completion of the NC 11 well, including facility upgrade and gathering line installation. In December 2009 Aurora commenced commercial production of the NC 11 as a lease operation because the well lay outside the NCU boundary. Aurora has completed all of the activities planned in the NCU 36th POD. Aurora perforated both the Beluga and Tyonek Reservoirs and received AOGCC approval to commingle production (CO 627), allocating 70 percent to the Beluga Undefined Gas Pool and 30 percent to the South Undefined Gas Pool. The NCU 37th POD, due on or before October 1, 2010, will describe further plans of development for the NCU.

4. The Economic Costs and Benefits to the State and Other Relevant Factors

Aurora submitted tract participation schedules for the two leases in the originally proposed WPA (Attachment3) as required by 11 AAC 83.371. The proposed allocation distributes expenses and production among the tracts/leases on a surface acreage basis. Aurora also submitted confidential paying quantities calculations for the NC 11 demonstrating that the well is capable of producing hydrocarbons in paying quantities, as required by 11 AAC 83.351 (a).

The Division approves Aurora's tract participation schedules. Aurora shall re-submit Exhibit B-4 using the same tract participation factors, but with two schedules – one for the WBPA and one for the WTPA. The royalty accounting unit codes approved for reporting production from the current lease operations, LC01, for the Tyonek production, and LC02, for the Beluga production, will be zeroed out back to the first day production was reported to each code. Aurora shall re-submit royalty and operating reports using the royalty accounting unit code NCWB for production allocated to the Beluga Undefined Gas Pool and using royalty accounting unit code NCWT for all of the production allocated to the South Undefined Gas Pool (Tyonek).

D. Decision Criteria considered under 11 AAC 83.303(a)

1. Promote The Conservation of All Natural Resources

The unitization of oil and gas reservoirs and the formation of participating areas within unit areas to develop hydrocarbon-bearing reservoirs are well-accepted means of hydrocarbon conservation. The expansion of the NCU to include the WBPA and the WTPA conserves natural resources by using existing facilities to gather, process, and transport production from the WBPA and the WTPA within the NCU. Formation of a participating area within an existing and expanded unit, with development occurring under the terms of a unit agreement promotes efficient evaluation and development of the State's resources, and minimizes impacts to the area's cultural, biological, and environmental resources.

2. The Prevention of Economic and Physical Waste

Approval of the proposed expansion of the NCU and the formation of the WBPA and the WTPA and associated field development will provide economic benefits to the State. The long-term goal is to maximize the physical and economic recovery of hydrocarbons from each of the productive reservoirs. Maximum hydrocarbon recovery will enhance the State's long-term royalty and tax revenue stream.

This proposed expansion prevents economic and physical waste within the NCU. Aurora has submitted tract allocation schedules that allocate costs and revenues equitably. All of the leases retain a 12.5 percent royalty rate under the original lease terms, and benefit

from a reduced royalty rate of 5 percent under AS 38.05.180(f)(5). Aurora owns 100 percent of the working interest of both leases.

3. The Protection of All Parties of Interest, Including the State

The formation of the WBPA and the WTPA within the expanded NCU protects the economic interests of the WIO of the reservoir and the royalty owner. The expansion promotes the State's economic interests because hydrocarbon recovery will be maximized and additional production-based revenue will be derived from the participating area's production.

IV. FINDINGS AND DECISION

Considering the facts discussed in this document and the administrative record, I hereby make the following findings and decision.

1. The expansion of the NCU and the formation of the WBPA and the WTPA provides for the recovery of hydrocarbons under a unit plan of development designed to maximize physical and economic recovery and equitable allocation of produced hydrocarbons and equitable division of costs.
2. The geological and engineering data provided reasonably justify the inclusion of the proposed acreage within the PAs under the terms of the applicable regulations governing formation and operation of oil and gas units (11 AAC 83.301 – 11 AAC 83.395) and the terms and conditions under which these lands were leased from the state.
3. The production of hydrocarbons through the existing production and processing facilities reduces the environmental impact of the additional production. Using existing facilities will avoid unnecessary duplication of development efforts on and beneath the surface.
4. The acreage proposed for inclusion in the WBPA and the WTPA is underlain by hydrocarbons and reasonably estimated to be capable of production or contributing to production in paying quantities and justifies the formation of the participating areas effective December 1, 2009.
5. The WBPA overlies the Nicolai Creek Beluga Undefined Pool, comprised of sands within the Beluga Formation, from 920 Measured Depth (MD) to 2,099 MD. The stratigraphic limits of the WBPA are from 920 MD to 2,099 MD in the Nicolai Creek 11 well.
6. The WTPA overlies the Nicolai Creek South Undefined Pool, comprised of sands within the Tyonek Formation, from 2,260 MD to 2,362 MD. The stratigraphic limits of the WTPA are from 2,260 MD to 2,362 MD in the Nicolai Creek 11 well.

7. The Division approves the commingling of production from the Nicolai Creek Beluga Undefined Pool and the South Undefined pools, as approved by the AOGCC CO 627, allocating 70 percent of the Nicolai Creek 11 production to the Beluga Undefined Gas Pool and 30 percent to the Nicolai Creek South Undefined Pool.
8. The allocations of production and costs for the two tracts within the participating areas, as submitted for the originally proposed WPA (Attachment 3) are approved. Aurora shall submit revised exhibits reflecting the same proportions of allocation between the two tracts, but for two separate PAs, within 60 days of the issuance of this approval.
9. Aurora must report production from the WBPA to royalty accounting unit code NCWB and production from the WTPA to royalty accounting unit code NCWT. The royalty accounting unit codes LC01 and LC02 are closed, effective December 1, 2009, and Aurora, as sole WIO, shall submit revised operator and royalty reports back to the start of production, zeroing out production under the appropriate royalty accounting unit code and allocating all production as set out in the approved participating areas' tract allocation schedules. The revised reports are due within sixty days of the issuance of this approval. Production from the LC01 must be reported using royalty accounting unit code NCWT. The production from LC02 must be reported using royalty accounting unit code NCWB.

For the reasons discussed in this Findings and Decision, I hereby approve the Expansion of the NCU and the Formation of the WBPA and the WTPA.

A person affected by this decision may appeal it, in accordance with 11 AAC 02. This decision takes effect immediately. 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 Tom Irwin, Commissioner, DNR, 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. 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.

If you have any questions regarding this decision, contact Temple Davidson with the Division at 907-269-8784.



Kevin R. Banks,
Director
Division of Oil and Gas

5-5-10

Date

Attachments:

1. Nicolai Creek Unit Exhibit A
2. Nicolai Creek Unit Exhibit B
3. Nicolai Creek Unit West Participating Area Exhibit B-4

ATTACHMENT ONE:

Nicolai Creek Unit Exhibit A

Nicolai Creek Unit - Exhibit A

North PA, South PA, Beluga PA, and West PA Tracts

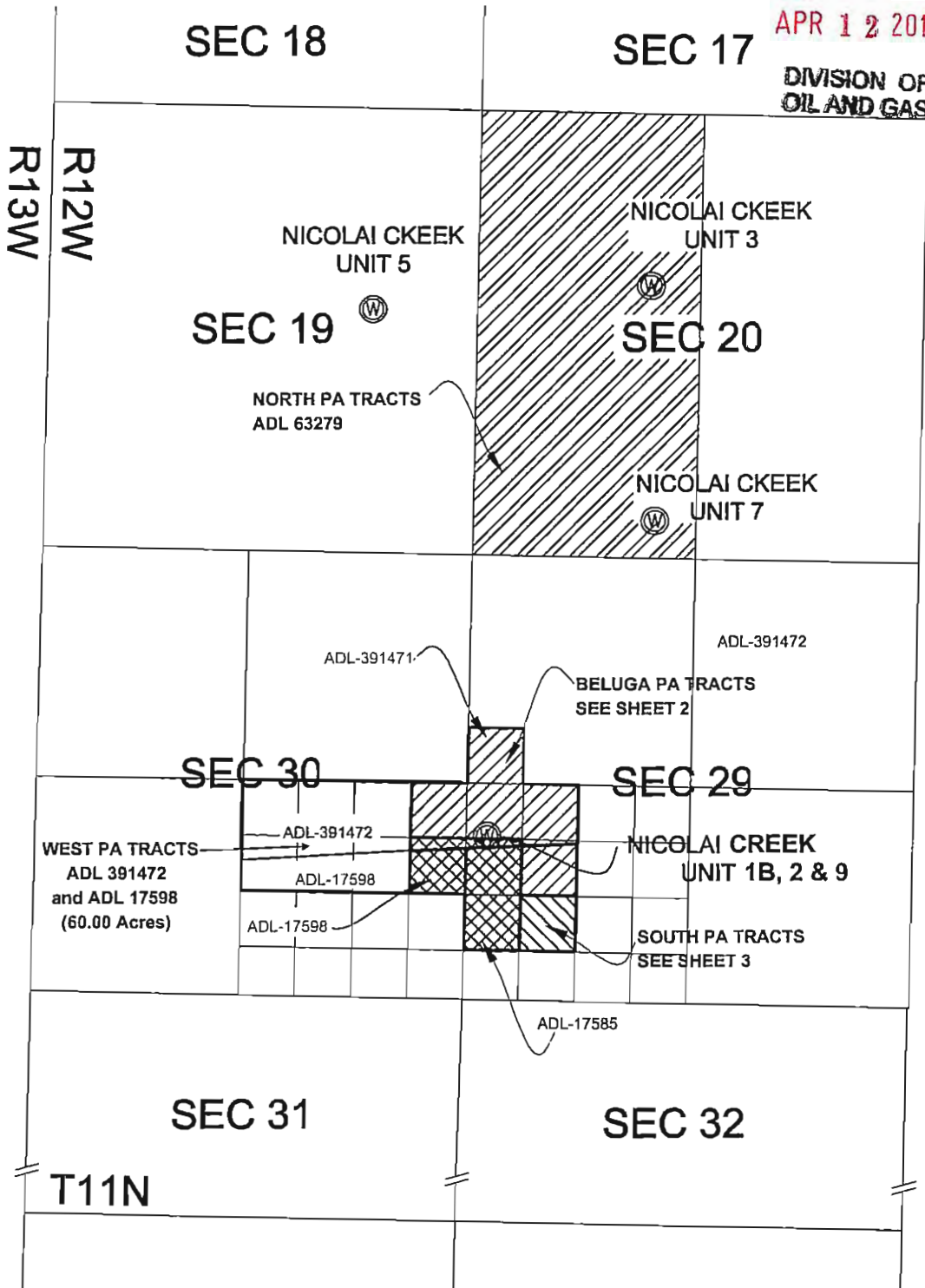


T. 11 N., R. 12 W., S.M., Alaska

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SHEET 1 OF 3



UPDATED
12/28/09

Aurora Gas, LLC

REV DATE



JOB NO. 013219

ATTACHMENT TWO
Nicolai Creek Unit Exhibit B

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Exhibit "B"

NICOLAI CREEK UNIT AGREEMENT

Unit Area

DIVISION OF OIL AND GAS

Nicolai Creek Unit Tract Number	Description of Participating Lands	Gross Acres	Committed Participating Acreage	Lessor / Royalty Owner Lease Serial No.	Royalty Interest	DRRI Owners	Owning Royalty Interest	Working Interest Owners & Percentage Working Interest	Expiration Date	Borough Recording District	Book	Page
1	T. 11 N., R. 12 W., S.M. Section 20; W1/2; Comprising a total of approximately 320.0 acres.	320.0000	320.0000	State of Alaska ADL-03279	0.1250*	Alice F. & J. Bailey Hinkio, et al Mazzeo & Robert K. Masuda Kaiso & Marcelita T. Masuda Donald L. Stroble Alice Couillard Jayne Y. & Fred S. Hokama Kaho & Satoshi Kohku, et al Rosa & Bernard March, et al Ruth S. & Mobley Pharis Paulida & Jack B Conway Laverna L. Traueger, et al John R. Roderick David Bolens total	0.0025704 0.0028571 0.0025704 0.0025704 0.0025704 0.0025704 0.0025704 0.0025704 0.0012500 0.0100000 0.0401788	Aurora 100%	HBP	Anchorage	N/A	N/A
2	T. 11 N., R. 12 W., S.M. Section 29 & 30; being all that portion of Section 29; S1/2NW1/4SW1/4; comprising approximately 2.410 acres, landward of the shoreline along the mean high tide of Cook Inlet, and all of the N1/2NW1/4SW1/4, SW1/4SW1/4NW1/4; comprising approximately 30.0 acres, and, being all that unsurveyed portion of Section 30; SE1/4NE1/4SE1/4; comprising approximately 2.007 acres, landward of the shoreline along the mean high tide of Cook Inlet, and all of the NE1/4NE1/4SE1/4; comprising approximately 10.0 acres; Comprising a total of approximately 44.513 acres.	44.5130	44.6130	State of Alaska ADL-301471	0.1250*	Alice F. & J. Bailey Hinkio, et al Mazzeo & Robert K. Masuda Kaiso & Marcelita T. Masuda Donald L. Stroble Alice Couillard Jayne Y. & Fred S. Hokama Kaho & Satoshi Kohku, et al Rosa & Bernard March, et al Ruth S. & Mobley Pharis Paulida & Jack B Conway Laverna L. Traueger, et al John R. Roderick David Bolens total	0.0025704 0.0028571 0.0025704 0.0025704 0.0025704 0.0025704 0.0025704 0.0025704 0.0012500 0.0100000 0.0401788	same as above	HBP	Anchorage	N/A	N/A
3	T. 11 N., R. 12 W., S.M. Section 20; being all tide and submerged lands within the S1/2NW1/4SW1/4, N1/2SW1/4SW1/4; Comprising a total of approximately 37.504 acres.	37.5040	37.5040	State of Alaska ADL-17685	0.1250*	David Bolens Mental Health Trust Land Office total	0.0100000 0.0050000 0.0100000	same as above	HBP	Anchorage	N/A	N/A
4	T. 11 N., R. 12 W., S.M. Section 30; being all tide and submerged lands within the SE1/4NE1/4SE1/4; Comprising a total of approximately 7.003 acres.	7.0030	7.0030	State of Alaska ADL-17508	0.1250*	David Bolens Mental Health Trust Land Office total	0.0100000 0.0050000 0.0100000	same as above	HBP	Anchorage	047	0083
5	T. 11 N., R. 12 W., S.M. Section 30; being all tide and submerged lands within the W1/2SE1/4SE1/4, E1/2SW1/4NE1/4, W1/2NE1/4SE1/4, NW1/4SE1/4, SW1/4NE1/4, NW1/4SE1/4; landward of the shoreline along the mean high tide of Cook Inlet; Comprising a total of approximately 75.000 acres.	35.0000	35.0000	State of Alaska ADL-301472	0.1250*	Alice F. & J. Bailey Hinkio, et al Mazzeo & Robert K. Masuda Kaiso & Marcelita T. Masuda Donald L. Stroble Alice Couillard Jayne Y. & Fred S. Hokama Kaho & Satoshi Kohku, et al Rosa & Bernard March, et al Ruth S. & Mobley Pharis Paulida & Jack B Conway Laverna L. Traueger, et al John R. Roderick David Bolens Cook Inlet Region Incorporated total	0.0025704 0.0028571 0.0025704 0.0025704 0.0025704 0.0025704 0.0025704 0.0025704 0.0025704 0.0025704 0.0012500 0.0100000 0.0420788	same as above	HBP	Anchorage	N/A	N/A
6	T. 11 N., R. 12 W., S.M. Section 30; being all tide and submerged lands within the SW1/4NE1/4, NW1/4SE1/4, NW1/4SE1/4; Comprising a total of approximately 64.100 acres.	24.1000	24.1000	State of Alaska ADL-17508	0.1250*	David Bolens Mental Health Trust Land Office Cook Inlet Region Incorporated total	0.0100000 0.0050000 0.0025000 0.0175000	same as above	HBP	Anchorage	N/A	N/A

* Currently subject to Royalty Reduction Relief at .05

Total Unleased Land: 105.4870 105.4870

ATTACHMENT THREE
Nicolai Creek Unit West Participating Area Exhibit B-4
Tract Allocation Schedule

Exhibit "B-4"

NICOLAI CREEK UNIT AGREEMENT

West Participating Area

Nicola Creek Unit Tract Number	Description of Participating Lands	Gross Acres	Tract Participating Factor (PA)	Committed Participating Acreage	Leasor / Royalty Owner Lease Serial No.	Royalty Interest	ORRI Owners	Overriding Royalty Interest	Working Interest Owners & Percentage Working Interest	Expiration Date
5	T. 11 N., R. 12 W., S.M. Section 30: being all that portion of Section 30: W1/2SE1/4SE1/4, E1/2SW1/4NE1/4, W1/2NE1/4SE1/4, NW1/4SE1/4, landward of the shoreline along the mean high tide of Cook Inlet; Comprising a total of approximately 75,900 acres.	35.9000	0.5903333	35.9000	State of Alaska ADL-391472	0.1250 *	Alice F. & J. Bailey Hinkle, et al Missie & Robert K. Masuda Kelso & Marcella T. Masuda Donald L. Stroble Alicia Coulthard Jayne Y. & Fred S. Hokama Katie & Satoshi Kaku, et al Rose & Bernard Marash, et al Ruth S. & Mobley Pharis Patricia & Jack B. Conway Laverne I. Traxinger, et al John R. Reiderick David Bolens Cook Inlet Region Incorporated total	0.0025794 0.0028571 0.0020571 0.0025794 0.0025794 0.0025794 0.0025794 0.0025794 0.0025794 0.0012500 0.0025000 0.0426788	Aurora 100%	HBP
6	T. 11 N., R. 12 W., S.M. Section 30: being all tide and submerged lands within the SW1/4NE1/4SE1/4, NW1/4SE1/4SE1/4, NW1/4SE1/4, NW1/4SE1/4; Comprising a total of approximately 64,100 acres.	24.1000	0.4016667	24.1000	State of Alaska ADL-17598	0.1250 *	David Bolens Mental Health Trust Land Office Cook Inlet Region Incorporated total	0.0100000 0.0050000 0.0025000 0.0150000	Aurora 100%	HBP

Total Participating Area Land: 60.0000 1.0000000 60.0000

* Currently subject to Royalty Reduction Relief at .05

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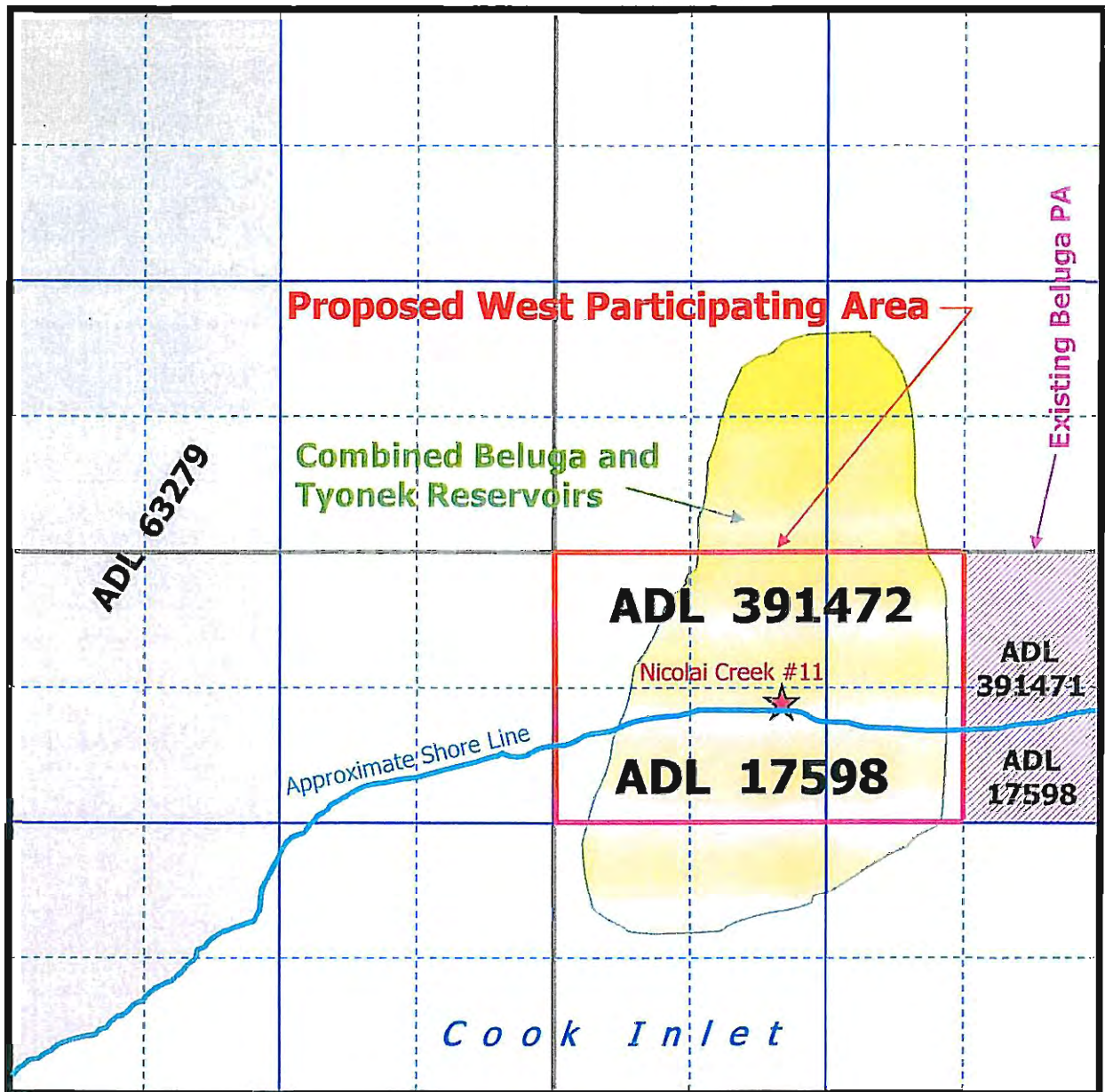
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Nicolai Creek Unit

Proposed West Participating Area

T. 11 North, R. 12 West, Seward Meridian

Section 30



**Nicolai Creek Unit
Proposed West PA**

ADL 17598

T. 11 N., R. 12 W., SEWARD MERIDIAN, ALASKA

SECTION 30: UNSURVEYED, ALL TIDE AND SUBMERGED LANDS WITHIN THE
SW4NE4SE4 (7.5 acres), NWSE4 (16.6 acres);

CONTAINING 24.10 ACRES, MORE OR LESS.

ADL 391472

T. 11 N., R. 12 W., SEWARD MERIDIAN, ALASKA

SECTION 30: UNSURVEYED, LANDWARD OF THE MEAN HIGH TIDE LINE OF THE
COOK INLET WITHIN THE W2NESE (12.5 acres), NWSE (23.4 acres);

CONTAINING 35.90 ACRES, MORE OR LESS.

PROPOSED NCU WEST PA CONTAINING 60.00 ACRES, MORE OR LESS.