

September 30, 2016

Andrew Mack, Commissioner State of Alaska, Department of Natural Resources Division of Oil and Gas 550 West 7<sup>th</sup> Avenue, Suite 1100 Anchorage, Alaska 99501-3560



SEP 29 2016

DIVISION OF OIL AND GAS

#### Re: Southern Miluveach Unit Proposed Fourth Plan of Development

Commissioner Mack:

Brooks Range Petroleum Corporation ("BRPC") is the Operator of the Southern Miluveach Unit located on the North Slope of Alaska. On behalf of the Unit's Working Interest Owners, BRPC submits the Southern Miluveach Unit Proposed Fourth Plan of Development ("4th POD") for approval by DNR, in accordance with the requirements of 11 AAC 83.343. Unit Plan of Development, and the terms of Article 8 of the Southern Miluveach Unit Agreement.

This 4th POD is to be considered an exhibit to the unit agreement and details the proposed development activities and the plans for exploration or delineation of any land in the unit not included in a participating area, based on data reasonably available at this time.

In accordance with AS 38.05.035(8)(c), we request that the Director hold the specific information within this 4th POD CONFIDENTIAL as it pertains to "all geological, geophysical, and engineering data supplied, whether or not concerned with the extraction or development of natural resources;" as cited in the statute.

More specifically, the following information is included:

- 1. Long-range proposed development activities for the unit, including plans to delineate all underlying oil or gas reservoirs, to bring the reservoirs into production, and to maintain and enhance production once established;
- 2. Plans for the exploration or delineation of any land in the unit not included in a participating area;
- 3. Details of the proposed operations for at least one year following submission of the plan; and
- 4. The surface location of proposed facilities, drill pads, roads, docks, causeways, material sites, base camps, waste disposal sites, water supplies, airstrips, and any other operation or facility necessary for unit operations.

In accordance with the Southern Miluveach Unit Agreement requirements, this POD is to be in effect by December 31, 2016 when the current Plan of Development expires.

BRPC is actively planning for the implementation of this project and awaits formal approval by DNR.

If you have any questions, please call me at (907) 339-9965.

Sincerely.

Bart Armfield President, CEO

cc: Corri Feige, Director, DNR Division of Oil and Gas Rebecca Kruse, SMU Unit Manager

510 L Street, Suite 601 Anchorage, AK 99501 (907) 339-9965 (907) 339-9961 fax

# Southern Miluveach Unit Fourth Plan of Development (4th POD)

Submitted By
Brooks Range Petroleum Corporation

On behalf of the Working Interest Owners

CaraCol Petroleum LLC, TP North Slope Development, MEP Alaska LLC, Ramshorn Investments, Inc., AVCG, LLC, Mustang Road LLC, MOC1 LLC

October 1, 2016

#### SOUTHERN MILUVEACH UNIT FOURTH PLAN OF DEVELOPMENT

The Southern Miluveach Unit is located at the North Slope of Alaska west of the Kuparuk River Unit. It is operated by Brooks Range Petroleum Corporation ("BRPC") on behalf of the Working Interest Owners: CaraCol Petroleum LLC, TP North Slope Development, MEP Alaska LLC, Ramshorn Investments, Inc., AVCG, LLC, Mustang Road LLC, and MOC1 LLC. The Unit is comprised of five leases totaling 8,960 acres. A Unit map and lease ownership summary are attached for reference (attached - Exhibits A and B of the Southern Miluveach Unit Agreement).

In accordance with the requirements of 11 AAC 83.343 Unit Plan of Development and the terms of Article 8 of the Southern Miluveach Unit Agreement, BRPC is submitting, for approval by the DNR, the Fourth Plan of Development ("4th POD") for Southern Miluveach Unit ("SMU") for the development of the Mustang Oil Field. The Department of Natural Resources Findings and Decision of the Commissioner dated March 30, 2016, the Southern Miluveach Unit was extended until December 31, 2017. The term of the Third Plan of Development was extended until December 31, 2016. Therefore, the 4th POD must be in place by December 31, 2016 and cover the period January 1, 2017 through December 31, 2017.

In accordance with AS 38.05.035(8)(c), we request that the Director hold the specific information within this 4th POD CONFIDENTIAL as it pertains to "all geological, geophysical, and engineering data supplied, whether or not concerned with the extraction or development of natural resources;" as cited in the statute.

#### Southern Miluveach Unit 3rd POD Activity Summary

By letter dated November 19, 2015 the Division of Oil and Gas approved the 3rd POD submitted by BRPC as Operator of the SMU for the period December 1, 2015 through March 30, 2016 to coincide with the end of the Unit's 5-Year term. As mentioned above, the Unit was extended through December 31, 2017; the 3<sup>rd</sup> POD was extended through December 31, 2016.

The following summarizes in more detail the activities conducted over the term of the 3rd POD and any deviations to stated objectives within the 3rd POD in accordance with the requirements of 11 AAC 83.343 (a). Note that an Annual Report is being submitted simultaneously along with the 4<sup>th</sup> POD.

#### A. Drilling/Wells - 3rd POD Program

The development drilling commitments contained in the 3rd POD consisted of the following:

After evaluation of drilling results and issues encountered during drilling operation in the SMU 2nd POD, it was deemed necessary to utilize Managed Pressure Drilling (MPD) equipment and techniques to facilitate controlled drilling in over pressured conditions that are also subject to catastrophic fluid losses. BRPC may retrofit Nabors Rig 16E, or another suitable rig, for Managed Pressure Drilling.

As Part of the 3<sup>rd</sup> POD, BRPC was to consider the following options for drilling operations:

- Reenter SMU M-01A and utilize MPD techniques to add the planned horizontal lateral to the well and complete it as a horizontal producer in the Mustang development. Following successful drilling BRPC will endeavor to conduct a production test from SMU-01B.
- As economic conditions warrant, BRPC was to endeavor to reenter and finish drilling the SMU-M03 horizontal producer. Alternatively, if the casing design for the well was changed and is no longer compatible with the surface casing at the original SMU M-03 conductor location, this well may be drilled as a new well from another conductor location.
- If needed, and based on financial and economic conditions, a production test was to be considered on the new M-03 well may be conducted.
- Following successful drilling of SMU M-01B and M-03, BRPC was to evaluate continuing with the development drilling program under the 3rd POD. Emphasis was to be put on optimizing the economic

value and timing of drilling wells to coincide with the anticipated startup of the Mustang facilities at SMU.

The extent to which the requirements of the previously approved plan were achieved (Recap of Drilling Activity under the SMU 3rd POD):

No drilling activity was conducted within the SMU under the SMU 3<sup>rd</sup> POD.

- (1) Actual operations that deviated from or did not comply with the previously approved plan and an explanation of the deviation or noncompliance:
  - BRPC did not test any wells during the period of the 3<sup>rd</sup> POD. A root cause analysis showed that successful drilling will require significant rig modifications, namely Managed Pressure Drilling (MPD) equipment. MPD equipment and drilling techniques will lower the risk of controlling overpressure in the reservoir while at the same time preventing massive lost circulation incidents. This retrofit, or the use of another suitable drilling rig will be needed prior to returning to drilling at SMU. BRPC is in discussions with primary MPD providers and may award the contract after evaluating the most technically sound, track proven and efficient MPD service provider is determined.

#### Drilling/Wells - 4th POD Program, as Proposed

This 4th POD details the proposed development activities, and the plans for exploration or delineation of any land in the unit not included in a participating area, based on data reasonably available at this time. More specifically, the information below will address the following and meet the requirements of 11 AAC 83.33(c):

- 1. Long-range proposed development activities for the unit, including plans to delineate all underlying oil or gas reservoirs, to bring the reservoirs into production, and to maintain and enhance production once established. [See response to #2 immediately below.]
- 2. Plans for the exploration or delineation of any land in the unit not included in a participating area:
  - With regard to items 1 and 2 above, BRPC continues to review all potential targets within the SMU Unit, including but not limited to the Kuparuk "C" sands. BRPC intends to continue exploration to fully explore the Unit area as economic conditions warrant and financial conditions allow.
- 3. Details of the proposed operations for at least one year following submission of the plan: During the period January 1, 2017 through December 31, 2017, BRPC plans to select the appropriate drilling rig to recommence drilling operations in the SMU. Timing of the contracting, retrofitting, and commissioning of the drilling rig will be timed to provide the needed well stock for start-up in 4Q 2017.

Confidential Exhibit C is submitted under separate cover drilling and wells technical information.

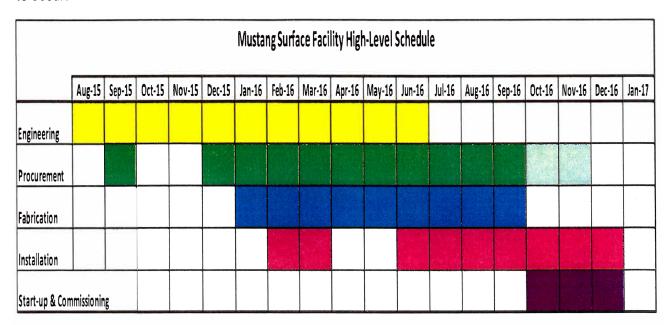
B. Facilities Engineering, Fabrication, Installation - 3<sup>rd</sup> POD Program

The Facilities commitments contained in the 3rd POD consisted of the following:

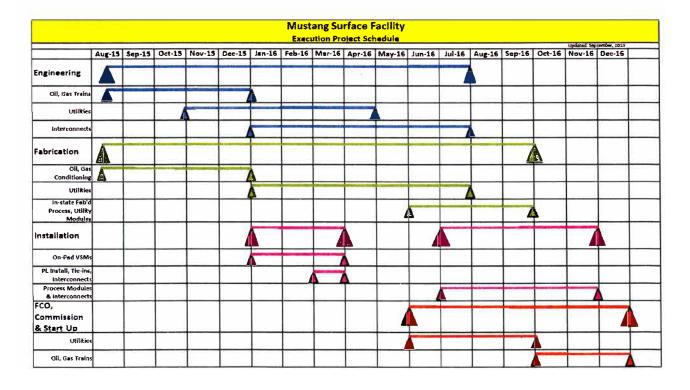
Through the end of 2015 and the 1st/2nd quarter 2016, BRPC, with its engineering contractor(s), will complete all remaining engineering and will issue for fabrication all the remaining process modules. BRPC intends to mobilize installation contractor(s) to install, interconnect, and commission North Slope process facilities, at the earliest 2nd quarter 2016. The earliest time for 1st oil is 4th quarter 2016.

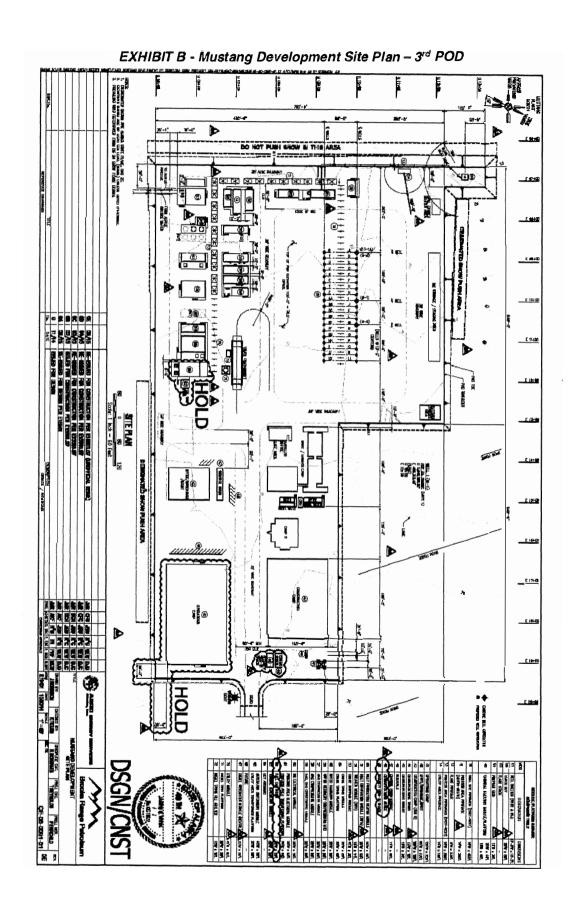
#### DEVELOPMENT SCHEDULE - 3rd POD

This high-level schedule depicts anticipated execution durations/timelines for engineering/design, procurement, fabrication, installation, and commissioning associated with the Central Process Facility truckable modules. This schedule is based on today's understanding of the field and the current economic conditions within the State of Alaska, and is a projection based on those conditions warranting the activities to occur.



#### Mustang Surface Facility Project Execution Schedule – 3<sup>rd</sup> POD





#### 3<sup>rd</sup> POD Facilities Engineering, Fabrication, Installation Activity Conducted:

Funding of the project has been slowed due to the downturn in Oil Price and the effect that has had on project economics. For this reason, in contrast to what was proposed as 3<sup>rd</sup> POD work plans, engineering contractors were not re-engaged nor was remaining engineering work scope completed. Beyond the fabrication work that continued in Canada, no additional fabrication or installation contracts have been let to advance facility build or install. Work completed to date is described below.

BRPC successfully completed fabrication of all remaining modules for the MOC1 oil train (Oil Mod 50 Production Heater + Mod 51 Oil Separator + Mod 52 Oil Treater), the Gas Compression Train (Mod 56 Vapor Recovery Compressor + Mods 57 & 58 High Pressure Gas Compressors), and the Mod 59 Gas Conditioning Unit. These Canadian-fabricated modules are staged in Calgary and Nisku, Alberta and are ready for shipment.

BRPC successfully completed procurement of many of the long-lead engineered equipment that had been ordered prior to project slowdown. All equipment ordered has now been received here in Anchorage and is in storage at one of three different contracted locations.

#### B. Facilities Engineering, Fabrication, Installation – 4th POD Program, as Proposed

Assuming receipt of project funding early 4<sup>th</sup> quarter 2016, BRPC Project Management Team [PMT] will immediately re-engage engineering contractors to contract for the completion of remaining engineering work scope. Simultaneously, procurement contractors will be engaged to seek a suitable party to support remaining procurement activities for equipment and services. Fabrication contractors and installation contractors will be contacted to begin issuance of fabrication and construction Requests for Proposals [RFPs] to support award of both fabrication work and North Slope installation work. See the updated Schedule x below.

The planned facilities included as part of this 4<sup>th</sup> POD, while very close to those detailed in the 2<sup>nd</sup> and 3<sup>rd</sup> PODs, have been modified as engineering has progressed and as reservoir understanding has matured. The tabulation below represents the current plans as to an optimal suite of process facility plant and equipment necessary to develop MOC1:

With a planned project restarting in 4<sup>th</sup> quarter 2016 and continuing through first oil in 4<sup>th</sup> quarter 2017, BRPC will develop the Mustang Oil Field with (SMU) process facilities and infrastructure.

The overall scope of the development includes the following major project scope elements: 1) gravel mine, gravel roads, and gravel production pad (Work scope completed 2nd quarter 2013); 2) central process facilities, drill site facilities, and two cross-country pipelines; 3) non-process infrastructure including buildings and equipment; 4) communications tower and related infrastructure; 5) injection and production wells.

As a standalone oil field, the Mustang Field will have two pipeline connections to non-SMU pipelines; 1) a 6" diameter crude sales pipeline will connect to the Alpine Transportation Company 14" diameter crude sales pipeline, and 2) a 6" diameter water pipeline will connect to the Alpine 12" seawater pipeline, both approximately 750'-1,000 feet from Mustang pad.

Mustang Field development will necessitate installation of many of the same facility and project components associated with other North Slope oil field developments. The Mustang project will include the following major components:

Gravel Mine, Gravel Roads, and Gravel Production Pad

Mustang Gravel Pit, roads and pads were constructed and conditioned in 2013.

Central Processing Facilities, Drillsite Facilities, and Cross-Country Pipelines

 BRPC will engineer, fabricate, and install a three-phase central processing facility to produce salesquality crude. The facility will include electrical and process modules, platforms, and support infrastructure.

- Engineering of the processing facilities and infrastructure, initiated in January 2015 and ceased with project slowdown in 3<sup>rd</sup> guarter 2015, is currently at approximately 65% complete.
- Fabrication of a portion processing modules was started in 2015 prior to project slowdown. Fabrication of the oil train modules, gas compression train modules, and gas conditioning train have been completed and the modules await shipment to Alaska from Canada.
- North Slope field installation activities began early-2015 with setting of piles/VSMs and pipeline tiein and pigging platforms. That work was ceased in 2<sup>nd</sup> quarter 2015 with a significant portion of the off-pad scope complete including all off-pad VSMs and pipeline platform installation.
- Fabricate and install two Tank Farms including:
  - Crude Storage: 1,500 Bbl crude storage with 2X 750bbl tanks
  - Diesel / Methanol / Chemical Storage: 400 bbl diesel + methanol + production chemicals
- Well tie-ins, pipe rack, headers, and multi-phase meters for production allocation;
- 6" oil pipeline for transport of sales-quality Mustang oil to the Alpine Transportation Company pipeline;
- 6" water pipeline for transport of seawater from the CPF2 to Alpine source water pipeline to the Mustang Field; and
- Pipe rack and ancillaries for up to 38 production and injection wells and associated well tie-ins.

Non-Process Infrastructure Will Include the following Buildings & Equipment

To support 2014 and 2015 construction activities, as well as future production operations, BRPC is installing the following infrastructure on the Mustang Pad.

- Rental Operations and Maintenance Staff Camp ~ 50-bed (2<sup>nd</sup> quarter 2017 install)
- Temporary Construction Camp ~ 250-bed (1st quarter 2017 install)
- Temporary Warehouse / Operations Support Center (early 2017 install)
  - o Warehouse
  - Maintenance facility
  - o Storage
  - o Warehousing
  - o Welding
  - o Laydown
  - o Maintenance
- Non-process equipment and vehicles will potentially include:
  - Rolling stock such as loaders / vacuum trucks / diesel tankers
  - o Light Plants / portable generation
  - o Passenger vehicles / transport buses / work trucks

#### Communications infrastructure

Tower and Communications Module will be installed late-2016.

(1) The extent to which the requirements of the previously approved plan were achieved Recap of Facilities Activity under the SMU 2nd POD:

- BRPC, with support from two primary engineering contractors, continued engineering, design, and
  procurement activities related to the Mustang Development. Engineering is approximately 65%
  complete for work yet to be completed;
- BRPC purchased and received in Alaska two 5 mega-watt dual-fueled turbine power generation packages from Solar of California;
- BRPC issued design / build contracts to multiple firms for the following process facility modules and equipment. Fabrication is ongoing for:
  - i. Oil processing train modules and related equipment (Production Heater Module / Separator Module / Crude Dehydrator Module);
  - ii. Gas compression train modules and equipment (Vapor Recovery Compression, High Pressure Gas Compression);
  - iii. Gas conditioning module and related equipment (Gas Dehydration Equipment);
  - iv. Mustang Control Room Module

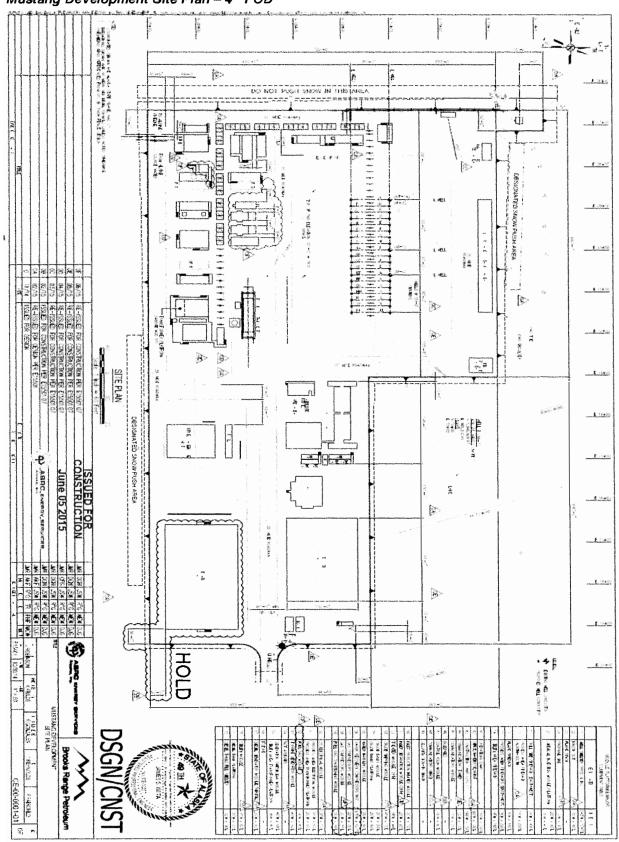
#### 4th POD Development Schedule

This high-level schedule depicts anticipated execution durations/timelines for engineering/design, procurement, fabrication, installation, and commissioning associated with the Central Process Facility truckable modules. This schedule is based on today's understanding of the field and the current economic conditions within the State of Alaska, and is a projection based on those conditions warranting the activities to occur.

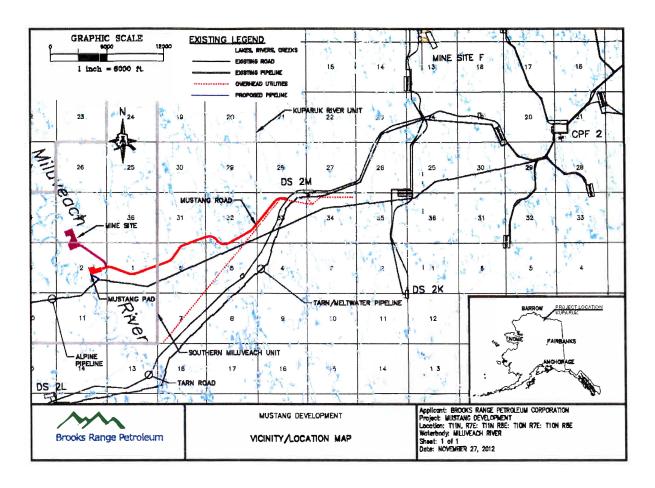
The schedule below depicts, at a very high level, the schedule for project execution necessary to achieve a 4<sup>th</sup> quarter 2017 first oil date. The bullets immediately below include more detail for what activities comprise this schedule:

- Fabrication of remaining modules starts December 2016 and continues through July 2017.
- All remaining on-pad piles will be installed 1<sup>st</sup> quarter-2017.
- CPAI-executed pipeline tie-in work will be executed 1st and/or 2nd quarter 2017.
- Cross country pipelines will be installed 1st or 2nd quarter 2017.
- First Alaska-fabricated modules to arrive at slope will initiate on-pad field construction activities April 2017.
- The last Alaska-fabricated module will arrive at slope for installation September 2017.
- The Canadian modules will arrive at slope via sealift approximately August 2017.
- Setting and tie-in of Canadian modules will be complete October 2017.
- System-wide Functional Check-Out (FCO) with Commissioning and Start-Up immediately after will take approximately 60-90 days and will lead to first oil in December 2017.

	Mustang MOC1 Surface Facility High-Level Schedule																	
	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18
Engineering																		
Procurement																		
Fabrication																		
Installation																		
Start-Up & Com	missioni	ng	•															



#### LOCATION MAP



#### C. Application for and Approval of Participating Area for SMU:

BRPC plans to submit the application for a Participating Area ("PA") in accordance with 11 AAC 83.351. Participating Area.

#### State of Alaska Request for Marketing and Facility Sharing Information

In accordance with the Department of Natural Resources Commissioner letter dated January 14, 2016 to BRPC requesting marketing information for unit hydrocarbons, BRPC does not have any information on marketing plans or opportunities at this time. The Mustang Oil Field is not yet in production, therefore does not have oil or gas royalty volumes available for marketing.

Regarding Facility Access and Sharing - BRPC continues to provide access to the SMU Mustang Road and Pad facilities in support of other companies' exploration, fieldwork, and development activities (past and current users: 70&148, Armstrong Energy, AEX, Caelus, ConocoPhillips, and Repsol).

Facility sharing to support BRPC's SMU production operations include possible water sourcing from STP in Kuparuk River Unit to support secondary recovery operations. Production will be moved through the Alpine Pipeline common carrier pipeline connected by tie-ins from the SMU production facilities. No Kuparuk Unit facilities sharing is planned.

#### Attachments:

Southern Miluveach Unit Agreement Exhibits A and B

Exhibit C - Drilling and Wells Technical Information submitted under separate cover - CONFIDENTIAL

#### Exhibit A, October 1, 2016

#### Attached to and made a part of the

Southern	Miluveacl	ո Unit /	Agreement

		Southern Milu	veach Unit A	greement			
Tract #	ADL#	Legal Description	Total Acres	Effective Date	State of Alaska Royalty Interest	Overriding Royalty Interest	Working Interest
1	390690	T. 11 N., R. 7 E., UMIAT MERIDIAN, ALASKA	640.00	7/1/2005	16.66667%		CaraCol 36.27750%
		Section 24, Unsurveyed, All, Including The Bed Of The Unnamed Lake, 640.00 Acres;					Thyssen 22.45750%
							Magnum 10.36500%
							Ramshorn 6.07860%
							AVCG 3.82140%
							MRLLC 1.00000%
						Armstrong 3.33333%	MOC1 LLC 20.00000%
2	390691	T. 11 N., R. 7 E., UMIAT MERIDIAN, ALASKA	2,560.00	7/1/2005	16.66667%		CaraCol 36.27750%
		Section 25, Unsurveyed, All, Including The Bed Of The Unnamed Lake, 640.00 Acres;	İ				Thyssen 22.45750%
		Section 26, Unsurveyed, All, 640.00 Acres;	_				Magnum 10.36500%
		Section 35, Unsurveyed, All, Including The Bed Of The Miluveach River, 640.00 Acres;					Ramshorn 6.07860%
		Section 36, Unsurveyed, All, Including The Bed Of The Unnamed Lake, 640.00 Acres;					AVCG 3.82140%
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3	390692	T. 11 N., R. 7 E., UMIAT MERIDIAN, ALASKA	640.00	7/1/2005	16.66667%		CaraCol 36.27750%
		Section 34, Unsurveyed, All, Including The Bed Of The Miluveach River, 640.00 Acres;	İ			İ	Thyssen 22.45750%
							Magnum 10.36500%
							Ramshorn 6.07860%
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	i						MRLLC 1.00000%
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4	390681	T. 10N., R. 7E., UMIAT MERIDIAN, ALASKA	2,560.00	7/1/2005	16.66667%		CaraCol 36.27750%
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i	i	Section 9, Unsurveyed, All, Including The Bed Of The Unnamed Lake, 640.00 Acres;					Ramshorn 6.07860%
i	i	Section 10, Unsurveyed, All, Including The Beds Of The Unnamed Lakes, 640.00 Acres;	i			İ	AVCG 3.82140%
i	i						MRLLC 1.00000%
-	- 1					Armstrong 3.33333%	MOC1 LLC 20.00000%
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- i		Section 11, Unsurveyed, All, 640.00 Acres;		1		<u> </u>	Ramshorn 6.07860%
		Section 12, Unsurveyed, All, 640.00 Acres;		-			AVCG 3.82140%
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		Total Agranga	0.000.00			Armstrong 3.33333%	MOCT LLC 20.00000%
		Total Acreage:	8,960.00			-	
AVCG = A	VCG II.C					1	
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		*	1				
Magnum =							
MRLLC = I		· ·	+			1	
		orn Investments, Inc.	_				
		Slope Development, LLC					
MOC1 LLC	= Mustan	g Operations Center 1 LLC					

#### Exhibit A, October 1, 2016

## Attached to and made a part of the Southern Miluveach Unit Agreement Overriding Royalty Interests as Requested on Assignments

	·	Overriding Royalty Interes	ts as Reques	ted on Assigr	nments		
Tract#	ADL#	Legal Description	Total Acres	Effective Date	State of Alaska Royalty Interest	Overriding Royalty Interest	Working Interest
1	390690	T. 11 N., R. 7 E., UMIAT MERIDIAN, ALASKA	640.00	7/1/2005	16.66667%		CaraCol 36.27750%
		Section 24, Unsurveyed, All, Including The Bed Of The Unnamed Lake, 640.00 Acres;					Thyssen 22.45750%
							Magnum 10.36500%
						0.96500%	Ramshorn 6.07860%
						1.53500%	AVCG 3.82140%
							MRLLC 1.00000%
						Armstrong 3.33333%	MOC1 LLC 20.00000%
2	390691	T. 11 N., R. 7 E., UMIAT MERIDIAN, ALASKA	2,560.00	7/1/2005	16.66667%		CaraCol 36.27750%
		Section 25, Unsurveyed, All, Including The Bed Of The Unnamed Lake, 640.00 Acres;					Thyssen 22.45750%
		Section 26, Unsurveyed, All, 640.00 Acres;					Magnum 10.36500%
		Section 35, Unsurveyed, All, Including The Bed Of The Miluveach River, 640.00 Acres;				0.96500%	Ramshorn 6.07860%
		Section 36, Unsurveyed, All, Including The Bed Of The Unnamed Lake, 640.00 Acres;				1.53500%	AVCG 3.82140%
							MRLLC 1.00000%
						Armstrong 3.33333%	MOC1 LLC 20.00000%
3	390692	T. 11 N., R. 7 E., UMIAT MERIDIAN, ALASKA	640.00	7/1/2005	16.66667%		CaraCol 36.27750%
		Section 34, Unsurveyed, All, Including The Bed Of The Miluveach River, 640.00 Acres;					Thyssen 22.45750%
							Magnum 10.36500%
						0.96500%	Ramshorn 6.07860%
						1.53500%	AVCG 3.82140%
							MRLLC 1.00000%
						Armstrong 3.33333%	MOC1 LLC 20.00000%
4	390681	T. 10N., R. 7E., UMIAT MERIDIAN, ALASKA	2,560.00	7/1/2005	16.66667%		CaraCol 36.27750%
		Section 3, Unsurveyed, All, Including The Beds Of The Unnamed Lakes, 640.00 Acres;					Thyssen 22.45750%
		Section 4, Unsurveyed, All, Including The Bed Of The Unnamed Lake, 640.00 Acres;					Magnum 10.36500%
		Section 9, Unsurveyed, All, Including The Bed Of The Unnamed Lake, 640.00 Acres;				0.96500%	Ramshorn 6.07860%
		Section 10, Unsurveyed, All, Including The Beds Of The Unnamed Lakes, 640.00 Acres;				1.53500%	AVCG 3.82140%
		, , , , , , , , , , , , , , , , , , ,					MRLLC 1.00000%
						Armstrong 3.33333%	MOC1 LLC 20.00000%
5	390680	T. 10N., R. 7E., UMIAT MERIDIAN, ALASKA	2,560.00	7/1/2005	16.66667%		CaraCol 36.27750%
		Section 1, Unsurveyed, All, 640.00 Acres;	_,				Thyssen 22.45750%
		Section 2, Unsurveyed, All, 640.00 Acres;					Magnum 10.36500%
		Section 11, Unsurveyed, All, 640.00 Acres;				0,96500%	Ramshorn 6.07860%
		Section 12, Unsurveyed, All, 640.00 Acres;				1.53500%	AVCG 3.82140%
							MRLLC 1.00000%
						Armstrong 3.33333%	MOC1 LLC 20.00000%
		Total Acreage:	8,960.00	<u> </u>		- Tunnon ong oloobook	
OPPI's		by assignment. DO&G denied. Under appeal as of 11/2014	0,000.00				
AVCG A			-		ale AM Commission and		
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		orn Investments, Inc.				***************************************	
		Slope Development, LLC					
MOC1 LLC	Mustar	ng Operations Center 1 LLC					

# **Exhibit B**Attached to and made part of the

### Southern Miluveach Unit Agreement

