



THE STATE
of **ALASKA**
GOVERNOR BILL WALKER

Department of Natural Resources

DIVISION OF OIL & GAS

550 W. 7th Avenue, Suite 1100

Anchorage, Alaska 99501-3560

Main: 907.269.8800

Fax: 907.269.8939

August 22, 2018

CERTIFIED MAIL
RETURN SERVICE REQUESTED

Katrina Garner
Fieldwide Manager
BP Exploration (Alaska) Inc.
PO Box 196612
Anchorage, AK 99519-6612

Re: 2018 Plan of Development for the Prudhoe Bay Unit GPMA

Dear Ms. Garner:

BP Exploration (Alaska) Inc. (BPXA) submitted a proposed 2018 Plan of Development (POD) for the Prudhoe Bay Unit (PBU) Greater Point McIntyre Area (GPMA) to the Department of Natural Resources, Division of Oil and Gas (Division) on June 27, 2018. This decision approves the 2018 POD.

BPXA's proposed POD provides information about development and operational activities, as prescribed by 11 AAC 83.343. Accordingly, the Division notified BPXA by email on July 6, 2018 that the Division had deemed the POD submittal complete. BPXA provided a technical presentation prior to submitting the POD, on June 20, 2018.

The GPMA consists of six participating areas (PA): Combined Niakuk, Lisburne, North Prudhoe Bay, Point McIntyre, Raven, and West Beach PAs. Initial production in the GPMA began with the Lisburne PA on December 15, 1986, which produces currently from the Wahoo and Alapah Formations. The Combined Niakuk, West Beach, North Prudhoe Bay, and Point McIntyre PAs all began sustained production between 1993 and 1994 with the North Prudhoe Bay and West Beach PAs having production shut-in since 2000 and 2001, respectively. The Point McIntyre PA (PMPA) and the Combined Niakuk PA continue to produce from the Cretaceous Kuparuk River Formation. Raven, the most recently formed PA in the GPMA, produces from the Ivishak and Sag River formations and commenced sustained production in October 2005. Cumulatively, the PAs in the GPMA have produced approximately 784 million barrels of hydrocarbon liquids as of March 31, 2018. From April 1, 2017 through March 31, 2018, the GPMA average daily oil production rate was approximately 30,935 BOPD—an increase of approximately 5582 barrels per day from the same period the previous year.

Lisburne PA

BPXA planned to drill one new well during the 2017 POD period, L3-25. BPXA drilled the L3-25, plus another well, the NK-46A, completed both wells, and also conducted thirty well interventions during the POD period. These interventions included perforations, stimulations, gas-lift work, and well integrity repairs. L2-21 and L2-29 wells were converted from Lisburne

production to Ivishak. BPXA also moved to permanent status of the Lisburne gas cap water injection pilot project with the issuance of Conservation Order 207B.16.

For the 2018 POD period, BPXA plans to drill three new wells, L3-22A, L5-03, and L5-25A. BPXA will continue to evaluate the viability of additional drilling targets.

Combined Niakuk PA

For the 2017 POD period, BPXA planned to maintain production through reservoir management and continued evaluation of technical work to assess potential new drilling locations. Production was maintained and well NK-27 was repaired.

BPXA has no plans for new wells or projects during the 2018 POD period.

Pt. McIntyre PA

For the 2017 POD period, BPXA maintained production through reservoir management, non-rig wellwork, and scale inhibition programs. Technical assessment of the subsurface is ongoing.

For the 2018 POD period, BPXA plans to continue evaluating and considering well optimization, additional rate adding projects in association with the STP-36 project, and a project to expand the volume of miscible injectant to PM-1 pad.

Raven PA

During the 2017 POD period BPXA planned to drill, and drilled NK-15A well. Additionally, it repaired and restored production from NK-14B after a casing leak. Technical evaluations of drilling options in Raven are ongoing using the 2014/2015 North Prudhoe Seismic survey.

For the 2018 POD period, BPXA is interpreting the 2014/2015 North Prudhoe Seismic survey. BPXA also plans to convert NK-65A to a Sag River producer.

North Prudhoe Bay PA

The North Prudhoe Bay PA continues to be shut-in because of safety and environmental concerns. BPXA is interpreting results of a 2014/2015 North Prudhoe Seismic survey to improve structure mapping over the field and better understand the Kuparuk, Sag, Ivishak, Lisburne, and Alapah intervals in this part of the unit.

West Beach PA

The West Beach PA has been shut-in since 2009 due to complications with the production line from the WB-04 and WB-05B wells. BPXA is assessing the current conditions of the West Beach pipeline and surface equipment. No projects or well work are planned in the 2018 POD period.

Consideration of the 2018 POD

When reviewing a POD, the Division must consider the criteria in 11 AAC 83.303(a) and (b). Accordingly, the Division considered the public interest, conservation of natural resources,

prevention of economic and physical waste, protection of all interested parties including the state, environmental costs and benefits, geological and engineering characteristics of the reservoirs or potential hydrocarbon accumulations, prior exploration activities, plans for exploration or development, economic costs and benefits to the state, and any other relevant factors, including mitigation measures. 11 AAC 83.303(a)–(b).

In approving prior PODs for the PBU GPMA, the Division considered 11 AAC 83.303 and found the POD(s) promoted conservation of natural resources, promoted prevention of waste, and protected the parties' interests. The Division incorporates by reference those findings.

Continued production from the GPMA protects the State's interests in developing its oil and gas resources. BPXA further plans to drill three wells in the Lisburne PA. Much of BPXA's plans for the 2018 POD period involve interpreting the 2014/2015 North Prudhoe Seismic survey. These survey results could help identify additional drilling opportunities throughout the GPMA, as well opportunities for reactivating the shut-in West Beach and North Prudhoe Bay PAs. The seismic program was thus an investment to further assess state resources and eventually maximize the recovery from mature reservoirs. BPXA's decision to make the Lisburne gas cap water injection pilot project permanent should also increase recovery and extend the life of the field. Finally, BPXA has continued efforts to repair pipelines in the GPMA.

Having considered the 11 AAC 83.303 (a) and (b) criteria, the Division finds that the 2018 POD complies with the provisions of 11 AAC 83.303. Accordingly, the 2018 POD is approved for the period October 1, 2018 through September 30, 2019.

This approval is only for a general plan of development. Specific field operations will require an approved Plan of Operations. Under 11 AAC 83.343, the 2019 POD is due on July 2, 2019, ninety (90) days before the 2018 POD expires.

An eligible 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 Andrew Mack, Commissioner, Department of Natural Resources, 550 West 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 takes effect immediately. 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 questions regarding this decision, contact Kevin Pike with the Division at 907-269-8451 or via email at Kevin.Pike@Alaska.gov.

Sincerely,



Chantal Walsh
Director