



THE STATE  
of **ALASKA**  
GOVERNOR BILL WALKER

Department of Natural Resources

Division of Oil & Gas

550 W. 7<sup>th</sup> Avenue, Suite 1100

Anchorage, Alaska 99501-3560

Main: 907.269.8800

Fax: 907.269.8939

October 27, 2016

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Nathan C. Lowe  
Land Manager  
Armstrong Energy, LLC  
1421 Blake Street  
Denver, CO 80202

Re: Pikka Unit – 2016-2017 Plan of Exploration

Dear Mr. Lowe,

On October 4, 2016, the State of Alaska, Department of Natural Resources, Division of Oil and Gas (Division) received the proposed Pikka Unit 2016-2017 Plan of Exploration (2017 POE) submitted by unit operator Armstrong Energy, LLC (Armstrong). The Division found the 2017 POE complete as described in 11 AAC 83.341(b) on October 10, 2016.

As required by the Pikka Unit Agreement Article 8.1.1 and 11 AAC 83.341 an updated POE must be submitted to the Division and Arctic Slope Regional Corporation (ASRC) at least sixty days before the expiration date of the previous plan. All exploration operations must be conducted under an approved plan of exploration.

The Initial Plan of Exploration approved at unit formation described drilling three wells, the Qugruk 8, Qugruk 301 and Qugruk 9. Each well was successfully drilled, logged, and tested. Data from these wells continues to be analyzed and integrated into Armstrong's geologic models. The 2015-2016 POE submitted by previous operator Repsol E&P USA Inc. proposed the acquisition of a license to the existing North Island 3D seismic survey, reprocessing of the data, and conducting rock physics studies. Additionally, stratigraphic analysis and special core analysis of recovered cores from wells drilled in 2015 was proposed. These activities were completed or are ongoing.

The 2017 POE proposes further seismic interpretation, incorporation of the data into a reservoir model, and conducting further rock physics studies. Additionally, second phase special core analysis of recovered cores from wells drilled in 2015 will be performed. These activities will provide further data that will aid in selecting optimum well locations for future development.

When considering a POE, the Division must consider whether the POE is necessary or advisable to protect the public interest. 11 AAC 83.303(a). The Division will approve a POE upon a 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. *Id.* In evaluating conservation, prevention of waste, and the parties' interest, the Division 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).

In approving the prior Pikka POE, the Division considered 11 AAC 83.303 and found that the POE promoted conservation of natural resources, promoted prevention of waste, and protected the parties' interests. The Division incorporates by reference those findings.

Armstrong proposes to perform further data processing and interpretation during the 2016-2017 POE period. The Division has considered the 11 AAC 83.303(b) factors and (a) criteria, and the degree to which the additional activity impacts its previous analysis and POE approval. The additional seismic interpretation, combined with existing well data, will aid in locating future exploration and delineation wells. In turn, this work may lead to more jobs and state revenue upon development of the resources. Finally, the ability to locate optimal well locations protects the natural resources by minimizing the number of wells drilled and preserves the integrity of the reservoir(s).

Based on the Division's prior POE approval and analysis of the 11 AAC 83.303(b) factors and (a) criteria for the additional exploration work proposed here, the Division finds that the 2016-2017 POE protects the public interest, promotes conservation, prevents waste, and protects the parties' interests. The Division expects that the operator will provide the Division copies of rock physics studies and special core analysis reports described in the plan. The 2016-2017 POE is approved for the period December 1, 2016 through November 30, 2017. This approval is only for a general plan of exploration. Specific field operations require separate approval under 11 AAC 83.346, Unit Plan of Operations. Pursuant to 11 AAC 83.343 – 11 AAC 83.346, a Pikka Unit 2017-2018 update to the Plan of Exploration will be due in these offices at least sixty days prior to the expiration of the 2016-2017 POE, on or before October 1, 2017.

If you have questions regarding this decision, please contact Kevin Pike with the Division at (907) 269-8451 or via email at [Kevin.Pike@alaska.gov](mailto:Kevin.Pike@alaska.gov).

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 T. Mack, 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](mailto: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.

Sincerely,



James B. Beckham  
Acting Director

cc: Department of Law  
Teresa Imm, Arctic Slope Regional Corporation