



Note: The following is an English translation of the Japanese-language original

April 14, 2022

Japan Petroleum Exploration Co., Ltd.

## **Adoption to Operator of Joint Study for Acid Stimulation in Onnagawa Tight Oil Formation**

Japan Petroleum Exploration Co., Ltd. (JAPEX, Headquarters: Chiyoda-ku, Tokyo, President: FUJITA Masahiro) was adopted as an operator of the “Joint Study for Acid Stimulation<sup>(\*1)</sup> in Onnagawa Tight Oil<sup>(\*2)</sup> Formation” (Subject: Acid stimulation demonstration test at the Onnagawa tight oil formation to increase oil production and to recover more reserves), as one of the publicly solicited projects in FY2022 led by Japan Oil, Gas and Metals National Corporation (JOGMEC).

JOGMEC held this publicly solicitation to select an operator of the joint study for the Onnagawa tight oil formation, which is a major tight oil formation in Japan spreading through mid to southern area of Akita Prefecture. The applicants of the joint study were required various operator experiences of oil and gas development in domestic field and overseas as well as solid capabilities in the study and analysis of acid stimulation for tight oil formations.

JAPEX has been producing crude oil at the Ayukawa Oil Field located in Yurihonjo City of Akita Prefecture, and succeeded to produce a certain amount of tight oil for the first time in Japan by the preliminary test of acid stimulation in 2012. After that, we have been proceeding with laboratory tests and verifications by simulations, based on joint researches with JOGMEC, aiming for the commercial production of tight oil. In recognition of our achievement including important outcomes, we have been adopted as an operator of this joint study.

The joint study will implement to verify an effectiveness of an new acid stimulation design for the Onnagawa tight oil formation in light of the research findings regarding acid stimulation design in North America, through a demonstration test aiming further promotion of tight oil development. The demonstration test will be conducted to verify acid stimulation design for improvement in productivity from Onnagawa tight oil formation. The demonstration test will cover acid injections to the well, injectivity/productivity analyses, and analyses of flow-back fluid. The period of the joint study is about a year, which is until the end of March 2023.

JAPEX will develop and produce oil and gas in Japan, aligned with the government’s policy securing domestic valuable energy resources. Also, we continuously contribute to a stable energy supply in Japan utilizing our technologies acquired by oil and gas development to other business fields.

Note)

\*1: Acid stimulation is a method to extract oil and natural gas by injecting acid into formation consisting of minerals, targeting specific minerals that are easily dissolved by acid and form flow paths after dissolution.

\*2: Tight oil is a type of crude oil in tight formation consisting of low penetration rate rocks. It is also called shale oil.

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