

Opening Ceremony was held Celebrating the Start of Production Operations in Oil Sands Project at Hangingstone in the Province of Alberta, Canada (Notification)

Japan Petroleum Exploration Co., Ltd. (JAPEX) held an opening ceremony on September 13, following the start of production operations of bitumen (ultra-heavy crude oil extracted from oil sands) by SAGD method (*1) on August 3 in Oil Sands Project at the Hangingstone leases in the Province of Alberta, Canada (hereinafter “the Hangingstone Oil Sands Project”), which has been progressed through its consolidated subsidiary, Japan Canada Oil Sands Limited (JACOS).

The upbeat ceremony took place at the site of the Hangingstone Oil Sands Project, and included a number of distinguished guests: the Premier of the Province of Alberta, Consul-General of Japan in Calgary, representatives of the regional municipality and local communities, as well as various representatives of Japanese organizations that have been supporting the project such as Japan Oil, Gas and Metals National Corporation and Japan Bank for International Cooperation(*2). The news that the first batch of diluted bitumen (bitumen diluted by ultra-light crude oil for pipeline transportation) shipped from the Hangingstone Oil Sands Project reached the sales point, Edmonton, on that day, gave added meaning to the ceremony.

JAPEX has been engaged in oil sands development in Canada for almost 40 years since 1978, and started demonstration production by SAGD method in 1999 followed by commercial production in 2003 in part of the Hangingstone leases (3.75 section area) as a pioneer. Aiming at a full-scale commercial production, JAPEX started construction works for the Hangingstone Oil Sands Project after the final investment decision on December 2012 and realized it this time. The Hangingstone Oil Sands Project is a joint project between JACOS having a participating interest of 75% and acting as the operator and NEXEN Energy ULC (a wholly owned subsidiary of CNOOC Limited) with a participating interest of 25%.

Current production rate of the Hangingstone Oil Sands Project is around 5,000 barrels per day, and it will rise gradually as the wells get switched to full production mode. By the second half of 2018, production volume is expected to reach 20,000 barrels per day.



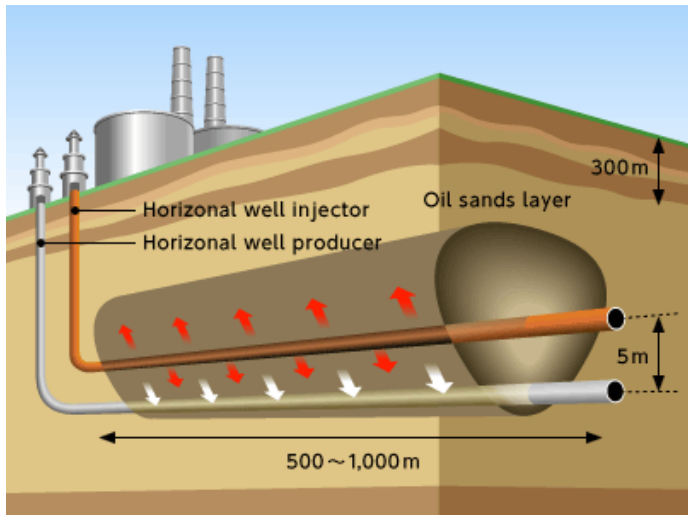
Photo (Left side): Ribbon Cutting at the ceremony



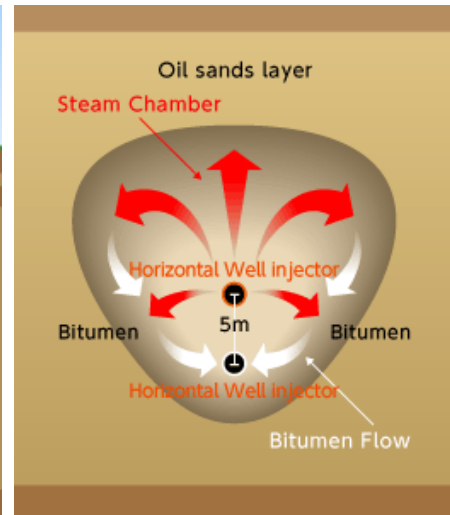
Photo (Right side): Bird-eye View of Central Processing Facility

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*1: In SAGD, two wells with horizontal sections of between 500m and 1,000m in length are drilled with a spacing of approximately 5m between the upper and lower wells in the oil sands layer located at 300m underground. The extraction process involves heating the oil sands layer by continuously injecting high-temperature, high-pressure steam into the upper well to provide liquidity to the bitumen, which in turn flows down to the lower well and is recovered along with hot water. JACOS has been achieving operational efficiencies that minimize freshwater consumption by recycling at least 90% of the hot water produced. Heading in to the start-up process, steam is injected into both production well and steam injection well (steam circulation mode) and once sufficient rise in temperature and pressure of the oil sands layer occurs, the wells are switched to full scale use mode (Semi SAGD/SAGD mode).



Conceptual Diagram of SAGD Method



Sectional View of SAGD Method

*2: You can watch the video of the ceremony by going to the following link ([Your Alberta: YouTube Channel of Government of Alberta](#))