

Cuba

Boca de Jaruco

The Boca de Jaruco field is located on the north coast of Cuba, 30 km from Havana. The contract area of 37 km² is located in the northwestern part of the field on the sea shore, 3.7 km west from the village of Boca de Jaruco. The field was discovered in 1969 and is operated by the Cuban state oil company CubaPetroleo.

Zarubezhneft, as the contractor, carries out its activities under the International Economic Association Agreement (IEAA) on increasing oil recovery and share production dated June 24, 2011. The Agreement is valid for 25 years and includes two stages: Pilot Commercial Development Stage — four years (with a renewal option for four years) and the Operating Stage. Well steam treatment is the primary method of enhanced oil recovery.

Since August 2020, co-financing for the Project for pilot commercial operation at the M formation has been extended for two years via the Special Account (2020–2022): Zarubezhneft and Kupet signed a contract for the completion of work, provision of services, and supply of materials and resources via the Special Account, a non-written-off part of Cuba's debt under the Agreement between the Government of the Russian Federation and the Government of the Republic of Cuba dated October 25, 2013 on the adjustment of Cuba's debt to the Russian Federation for loans granted during the existence of the former USSR.

In March 2020, tax holidays were provided for the project: the project is exempt from income tax for eight years following the transition to the regular management practice stage.

As of the end of 2020

- ▶ 4,550 tons of oil had been produced
- ▶ 49,000 tons of steam had been injected into the M formation
- ▶ 5 cyclic steam treatments of wells had been carried out
- ▶ horizontal wells had been completed
- ▶ 1 well servicing and workover interventions had been completed, including to equip the fiber-optic system.



In addition, innovative development testing was completed last year with intraformational oil upgrading by catalytic aquathermolysis at the BKh-3003 well. Steam to oil factor at the BKh-3003 well reached 2.9 tons of steam/tons of oil, which is the best indicator of the steam to oil factor.

The gas well cluster development and the construction of the oil and gas pipelines have been completed and commissioned. Pilot commercial development work using the cyclic steam treatment technology was carried out at wells 3001, 3003, 3004, and 3007. Commercial development work has been launched to test SAGD technology at wells 3005 and 3006.

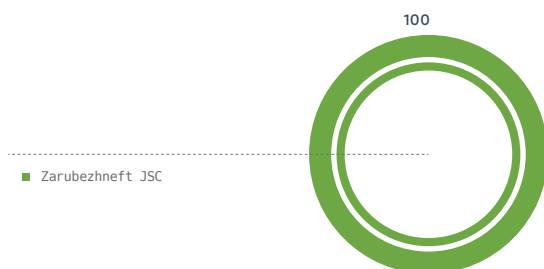
The methodology for calculating bituminous oil reserves was developed and approved by the Company's Scientific and Technical Council, and a primary calculation was made of natural bitumen reserves in the contract area: C1+C2 reserves amounted to 195 million tons, while resources totaled 727 million tons. The total penetration in 2020 was 2,795 meters.

Development prospects

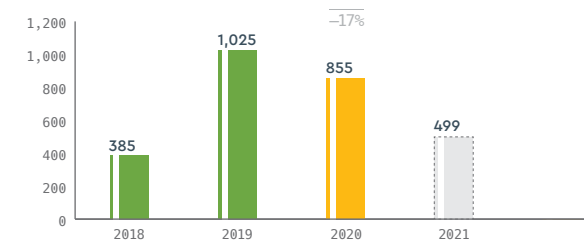
The 2021 work program for the project provides for the:

- ▶ Continued steam treatment of current wells
- ▶ Testing of the cyclic steam treatment technology in a horizontal well and steam assisted gravity drainage (SAGD)
- ▶ Pilot testing of the intraformational oil upgrading via catalytic aquathermolysis

OWNERSHIP STRUCTURE, %



CAPITAL EXPENSES, RUB mln



Capital expenses were made as part of the work plan approved for 2020.