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Sakhalin-1: Environmental and Regulatory Leadership

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Abstract

This paper reviews the environmental and regulatory performance of ExxonMobil Development Company (EMDC) and its contractors during Phase-1 development of the Sakhalin-1 Project Chayvo Field offshore Sakhalin Island, Russia, from 2002 through 2007. The Sakhalin-1 Project is being developed under a Production Sharing Agreement (PSA) with ExxonMobil's local affiliate, Exxon Neftegas Limited (ENL), serving as the operator for an international consortium of Russian, Japanese and Indian partners.¹

The Phase-1 development of Chayvo field is the first year-round offshore project to be completed in Russia. First oil was in October 2005 and the project reached full production by February 2007. To ensure good relationships and support from local, regional and federal government authorities, ENL implemented its global best practices for environmental performance and regulatory compliance. As measures of its success, ENL was awarded Foreign Project of the Year by the Russian publication, *RusEnergy* in 2006 and received the Excellence in Project Integration Award at the 2008 International Petroleum Technology Conference.

This paper demonstrates the need for early, comprehensive planning for environmental performance and regulatory compliance, including project approvals and permitting. It describes Russia's dynamic and complex regulatory framework and underscores the value of local expertise and professional relationships with Russian authorities. This paper also offers lessons learned from ENL's efforts to monitor Western gray whales and Steller's sea eagles, its oil spill prevention planning, archaeology, public consultation and other programs. The information and related lessons learned may be useful for future oil and gas developments, and could help benchmark similar projects or identify issues that other operators might face.

Introduction

The Sakhalin-1 oil and gas development, located on the northeast shelf of Sakhalin Island, includes the Chayvo, Odoptu and Arkutun-Dagi fields. Together they contain an estimated 2.3 billion barrels (307 million tons) of oil and 17.1 trillion cubic feet (485 billion cubic meters) of natural gas. Although hydrocarbons were discovered offshore Sakhalin in the 1970s, the technology to produce them was not available. The current phase of exploration and development began when the production sharing agreement became effective in 1996.

Exxon Neftegas Limited (30 percent) operates the Sakhalin-1 Project. The consortium includes two Russian companies, Sakhalinmorneftegas-Shelf (11.5 percent) and RN-Astra (8.5 percent), the Japanese company, Sakhalin Oil and Gas Development Co., Ltd. (30 percent) and India's ONGC Videsh Ltd. (20 percent). Both Russian partners are affiliates of Rosneft, the Russian state-owned oil company.

After five years of exploration in the Sea of Okhotsk, the Sakhalin-1 Project was declared commercial in October, 2001. Chayvo, the closest field to land, is the first to be developed. One reason for selecting Chayvo is that the

¹ Exxon Mobil Corporation has numerous affiliates, many with names that include ExxonMobil and Exxon. For convenience and simplicity in this presentation, those terms and terms like corporation, company, our, we and its are sometimes used as abbreviated references to specific affiliates or affiliate groups. Abbreviated references describing global or regional operational organizations and global or regional business lines are also sometimes used for convenience and simplicity.