

Mining and metallurgical complex

Production and processing of rare-metal ore at the Drozhilov field

Project overview:

Produce and process rare-metal ore at the Drozhilov field in Kostanai Oblast

Commercial product and production output for the entire Project period:

- lithium concentrate – 2,490 thousand tonnes (lithium – 149 thousand tonnes)
- molybdenum trioxide – 176.6 thousand tonnes (molybdenum – 118.3 thousand tonnes)
- artificial scheelite – 62.26 thousand tonnes (tungsten trioxide – 48.6 thousand tonnes)

Initiator: JV Kazakhstan-Russian Ore Company LLP has a contract in place to explore and produce molybdenum and tungsten at the Drozhilov field

Project implementation location: Kostanai Oblast, Denisov District

Potential markets: Russia, China

Market assumptions:

Growing demand for rare metals. Over the next decade, global demand for tungsten is predicted to increase as its use is strongly linked to the development of the processing industry and vehicle production. Lithium consumption in battery production has increased significantly in recent years as rechargeable lithium batteries are being used more and more often in portable electronic devices and electric car batteries.

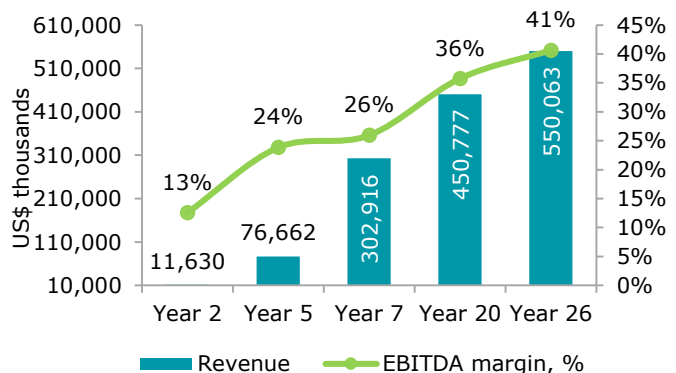
Rising metal prices. In the last three years, the lithium oxide price has increased 2.5 times due to growing demand. Average prices for molybdenum trioxide grew 20% in the same period. Prices for tungsten derivatives are currently growing. The lack of available financing and low metal content in ore limit supply and act a stimulus for further rare-metal price rises.

Raw materials base. Kazakhstan has the highest tungsten reserves in the world (63% of global reserves). It also has significant molybdenum and lithium reserves.

Key investment data

Index	Results
Project implementation period, years	26
<i>including the investment stage, years</i>	1
<i>operational stage, years</i>	25
Investment, US\$ thousands	88,556
Project NPV, US\$ thousands	332,269
IRR, %	46.6%
EBITDA returns, %	30%
Payback period, years	6.6
Discounted payback period, years	7.0

Project economics



Project location: Kostanai Oblast



Drozhilov field reserves

	Reser- ves, mln tonnes	Metals, thousand tonnes			Content, %		
		Mo	W	Li	Mo	W	Li
Pro- ven	140	263	64.3		0.19	0.05	
Calcu- lated	131	78	88.3	121	0.06	0.03	0.45
Esti- mated	300	150	150	-	0.05	0.05	