

# Mining and metallurgical complex

## Construction of Tymlai Mining, Chemical and Metallurgical Complex

### Project overview:

Construction of a mining, chemical and metallurgical complex for the production of derivative products from processing of titanium magnetite ores. The complex consists of two production facilities: a mining and processing plant at the Tymlai ore field and a chemical and metallurgical plant in the SEZ Pavlodar.

### Production volume:

1) Titanium dioxide – 601 thousand tonnes per year; 2) Special steel – 1956 thousand tonnes per year; 3) Silicon dioxide – 76 thousand tonnes per year.

**Products:** 1) titanium dioxide pigment; 2) special steel grades; 3) silicon dioxide;

**Initiator:** TENIR-Logistic LLP

**Location:** Zhambyl Region, Kordai District; SEZ Pavlodar

**Potential customers:** Kazakhstan, nearby countries

### Key investment indicators

Indicator	Result
Project implementation period, years	29
incl. investment stage, years	7
operating stage, years	26
Investment amount, \$US thousands	2,585,904
Project NPV, \$US thousands	5,465,840
IRR, %	46.4%
EBITDA margin, %	57%
Payback period, years	7.5
Discounted payback period, years	8.1

### Location of project implementation: Kordai district of Zhambyl region; SEZ Pavlodar

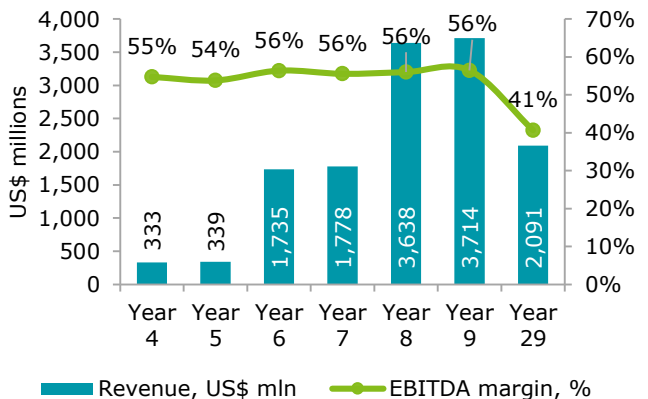


### Market prerequisites:

**Stable demand.** High historical production growth rates and strategic importance for the further development of industries using steel and titanium dioxide as raw materials create a steady demand for the products produced within the Project.

**Import substitution and export.** The lack of production of titanium dioxide in Kazakhstan, and a small amount of production in the CIS, creates prospects for sales. Regarding alloyed types of steel, the volume of imports for the last 5 years were in average 828 thousand tonnes in the Russian Federation and 2,627 thousand tonnes per year in the PRC. Moreover, currently there are forward contracts for the supply of special types of steels being already signed.

### Project profitability



### Ore field reserves

Name of the ore deposit	Industrial reserves (mln tonnes)		Prognosed resources (mln tonnes)	
	C1	C2	P1	P2
Tymlai	226			
Sarysai	100	60	44	
Akdala (South)	70	40	20	
Akdala (North)	-	-	30	229
Akterek	-	-	10	47
<b>Total:</b>	<b>396</b>	<b>100</b>	<b>104</b>	<b>276</b>
<b>Total C1+C2+P1+P2</b>	<b>876</b>			