

# Shalkiya Deposit

Zinc and lead deposit in Kazakhstan

01

Zn Pb

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# 02

## Investment structure

- ▶ The Company is seeking a Partner for mining and further processing of **lead-zinc ore of Shalkiya deposit** (the “Project”)
- ▶ The Company can entertain different transaction options, including sale up to 50% shares in the Project

## Investment opportunity

- ▶ **The largest zinc and lead ore deposit in Kazakhstan** with resources by B+C1+C2 categories—127.5 Mtons of ore with Zn and Pb grade of 4.27% and 1.28% accordingly
- ▶ **Well-developed infrastructure:** The nearest railway station Zhanakorgan is located 27 km of the deposit, electricity supply
- ▶ **Proximity to China and Asian markets,** the world’s largest zinc consumers
- ▶ **An experienced management team** with a extensive background in mining sector of Kazakhstan
- ▶ The Company has **stable funding** from SWF “Samruk-Kazyna” to finance Project implementation and development

## Company Overview

- ▶ Tau-Ken Samruk is the national operator of mining assets in Kazakhstan with exclusive first-refusal rights to any new exploration and production licenses being issued for the country’s mineral assets
- ▶ It was founded by the Government of Kazakhstan in 2009 to ensure the effective use of the country’s natural resources and promote its minerals assets to local and foreign partners that have expertise in exploration, development, production, processing and selling of solid minerals
- ▶ The Company is wholly owned subsidiary of SWF Samruk-Kazyna, the management holding of state assets in Kazakhstan

Cautionary note: This brochure contains certain forward-looking statements, meaning they are based on information currently available to Tau-Ken Samruk, providing no assurance in the actual results. Since forward-looking statements are based on assumptions and address future events and conditions, by their very nature they involve inherent risks and uncertainties. Actual results relating to, among other things, results of exploration, project development, reclamation and capital costs of Tau-Ken Samruk’s mineral properties could differ materially from those currently anticipated in such statements for many reasons such as: changes in general economic conditions and conditions in the financial markets; changes in demand and prices for minerals; litigation, legislative, environmental and other judicial, regulatory, political and competitive developments; technological and operational difficulties encountered in connection with Tau-Ken Samruk’s activities; and other matters. This list is not exhaustive of the factors that may affect any of Tau-Ken Samruk’s forward-looking statements.

# Project overview

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## General overview

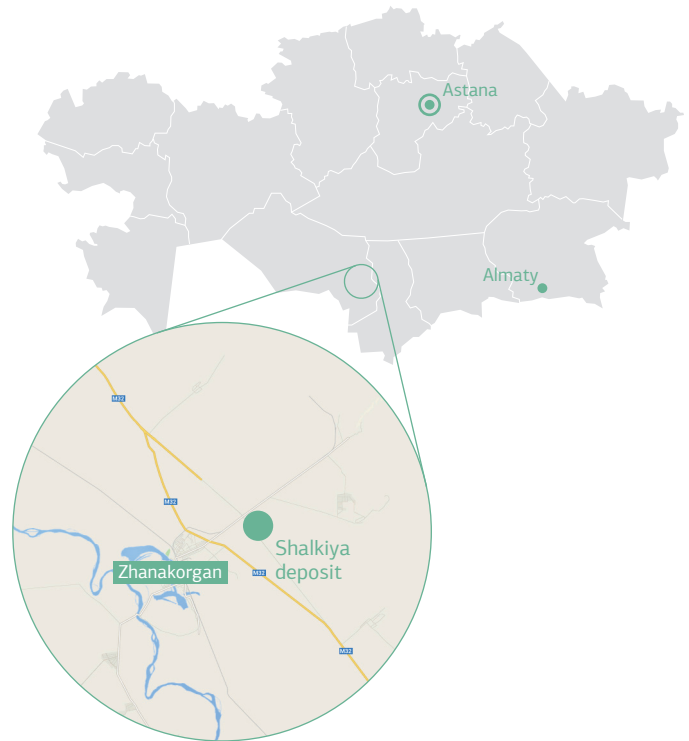
- ▶ Location: Zhanakorgan district of the Kyzylorda province
- ▶ Landscape: hummocky topography with absolute elevations of up to 250–300 m
- ▶ Climate: sharply continental with hot, dry summer and cold winter
- ▶ Subsoil use rights: the Contract №935 was signed in 2002 for extraction of polymetallic ores—45 years
- ▶ Contract area: 6,7 sq. km

## Deposit description

- ▶ Resources by B+C1+C2 categories—127.5 Mtons of ore with Zn and Pb grade of 4.27% and 1.28% accordingly
- ▶ Off-balance resources are equal to 119.6 Mtons of ore with Zn and Pb grade of 2.71% and 0.61% accordingly
- ▶ In 2007 AMC Consultants made an estimation of resources according to JORC with Indicated and Inferred resources—14,4 Mtons of ore with Zn and Pb grade of 3.83% and 2.05% accordingly
- ▶ Mineralization is localized in the carbon-clay-siliceous dolomite structures. There are two main ore bodies (upper and lower) of stratum—lenticular form
- ▶ The depth of ore bodies from the surface ranges from 40–50 m to 800 m. Useful minerals in the ore—sphalerite, galena and pyrite

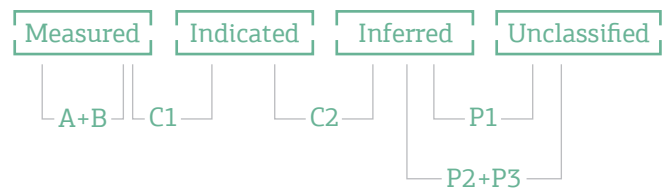
## Infrastructure

- ▶ The deposit is located 27 km of railway station in Zhanakorgan town
- ▶ The asphalt road Kyzylorda—Shymkent is in close location to the deposit and is connected by unpaved road
- ▶ Grade plant is located in distance of 165 km in Kentau. The transport routes are asphalt and rail-way roads
- ▶ Local infrastructure: two electric power lines 220 kV with length of 16 km, railway road that connected to railway station in Zhanakorgan (27 km), buildings and surface facilities on the deposit



## Mineral resources base approved by GKZ on 01.01.2013

Classification	Ore (Mtons)	Average grade(%)	
		Pb	Zn
B	8,3	1,48	4,29
C1	104,5	1,30	4,28
C2	14,6	1,06	4,22
Off – balance resources	119,6	0,61	2,71



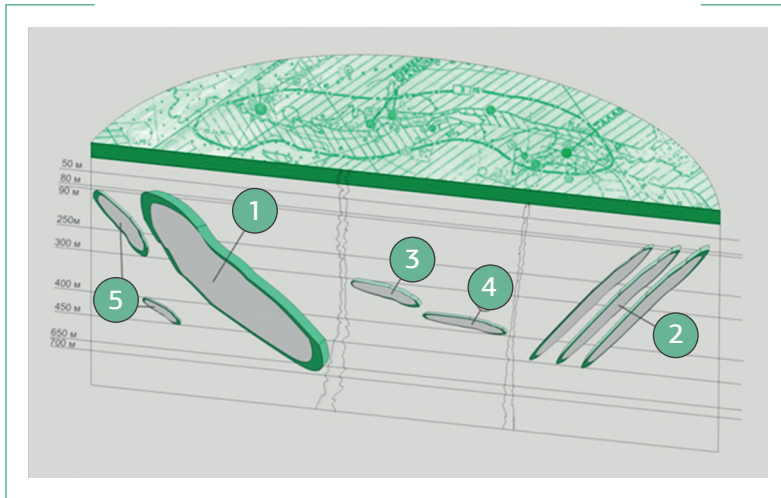
Note:  
A, B, C1 and C2  
can also be reserves

## Geology

- ▶ The deposit was opened in 1963, exploration works were conducted during 1964–1994
- ▶ Ores are characterized by subtle and mutual germination of all minerals. Sphalerite, galena and pyrite in the rocks are presented by impregnation of size less than 0.1 mm, impregnation can be larger
- ▶ Four types of ores are defined: sphalerite-pyrite, galena, sphalerite-pyrite, sphalerite-galena and rare galena-pyrite
- ▶ Ore of the deposits—lead and zinc, presented in carbonaceous-siliceous-carbonate rocks. By washability ores are of lead-zinc sulfide technological type

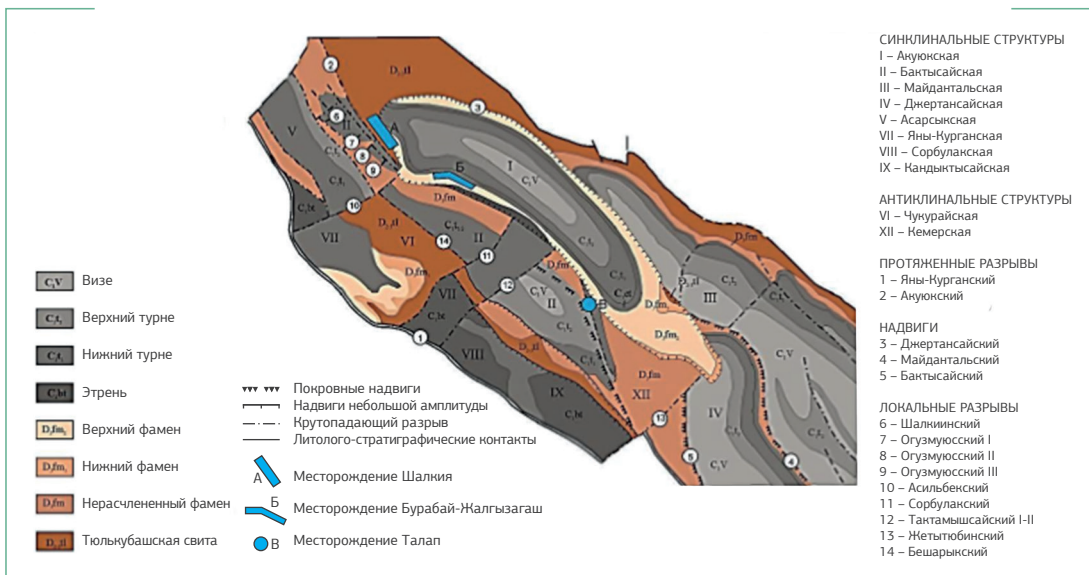
## Mining process

- ▶ To achieve the production output of up to 4 Mtons of ore per annum project envisages the construction of new mining complexes or the construction of two conveyor inclines and grade conveyor horizons



Layout of the zinc and lead deposits Shalkiya and Talap and potentially productive mineral deposits in the regions of Burabay, Zhalgyzalash and Shalkiya Zinc LLP

- 1 Shalkiya Deposit
- 2 Talap Deposit
- 3 Burabay Deposit (exploration stage)
- 4 Zhalgyzalash Deposit (exploration stage)
- 5 Potentially productive areas of ore body of Shalkiya Deposit



Geological location of the deposit