

*Case study:*

## **Alimak lift gives emergency access in underground mine**



*Voskhod-Oriel's Chromium mine, Kazakhstan*

## Case study:

**An Alimak rack and pinion-driven lift has been installed in Voskhod-Oriel's chromium mine in Kazakhstan. The lift serves as an escape lift in emergency situations.**

In 2008 Alimak Hek AB of Sweden signed a contract to provide an Alimak rack and pinion-driven lift for Voskhod-Oriel's chromium mine, located in the Khromtau district, Republic of Kazakhstan. The Alimak lift is being used for service and inspection purposes and also serves as an escape lift in emergency situations.

Kazakhstan currently holds a third of the world's chromium reserves, after South Africa and Zimbabwe. The environment in the mine creates high demands on the lifts durability and reliability. The Alimak lift has a lifting height of 204 meters and a payload capacity of 1000 kg or nine passengers. It is equipped with a single automatic control system, auto alarm, auto return to base, emergency phone, emergency flashing light on the car roof, and overload sensing device.

Several hundred Alimak lifts have been delivered to a variety of underground applications all over the world. Among them is the Norilsk iron ore mine in Siberia, Russia where five lifts were installed in the early 90's in up to 200 meters deep vertical shafts. The deepest Alimak lift goes 640 meters in a vertical shaft in Freeport, Indonesia. The deepest situated lift is for SNU Project, Sudbury, Canada, 2 300 meters below ground level.

Alimak Hek, specialists in rack and pinion-driven lifts for installation above as well as under ground. The Alimak lift has its drive unit placed on the roof of the lift car and climbs on guide rails, which are anchored to the rock wall with expansion bolts. The Alimak lift can travel vertically as well as at an inclination and the size and shape of the car can be adapted to the requirements at the site.



### LIFT DETAILS

Location:	Khromtau, Republic of Kazakhstan
Installation year:	2009
Application:	Underground mine
Lift type:	Rack & Pinion
Lift model:	ALIMAK SE 1000
Capacity:	1,000 kg or 9 persons
Lift car size:	1.04 m x 1.56 m x 2.17 m (W x L x H)
Speed:	0.59 m/s
Machinery:	1 x 11 kW DOL
Lifting height:	204.32 m
No. of landings:	2

[www.alimakhek.com](http://www.alimakhek.com)

Alimak Hek AB is ISO 9001 and 14001 certified.

