



SITE-VISIT TO **SEVERALMAZ**

Arkhangelsk, 20 June 2019

Event Details

Date – 20 June 2019

ALROSA representatives:

- Dmitry Byaloshitskiy
- Anastasia Boldyreva

Severalmaz representatives:

- Valeriy Kalashnikov
- Ilya Zezin

Dress code: casual, protective clothing (e.g. rubber boots for swampy areas) for site tour to be provided on request

Program

- | | |
|-------------|--|
| 08:10-10:10 | Flight Moscow – Arkhangelsk
(Sheremetyevo airport, flight SU1332) |
| 10:30-12:30 | Transfer from the Arkhangelsk airport to Severalmaz field: <ul style="list-style-type: none">• minibus• travelling distance: 105 km NB! Mobile network unavailable most of the way |
| 12:30-16:30 | Visit to Severalmaz key facilities: <ul style="list-style-type: none">• observation decks at the pits of the Arkhangelskaya and Karpinskogo–1 pipes• Processing Plant |
| 14:00-15:00 | Lunch |
| 16:30-18:30 | Transfer to the Arkhangelsk airport |
| 19:20-21:20 | Flight Arkhangelsk – Moscow
(Sheremetyevo airport, flight SU1331) |

Severalmaz Management



Andrey Pismenniy

Director of Severalmaz
since 2015

2010–2015
ALROSA's Chief Engineer

1997–2010
Held various executive positions at
ALROSA

1982–1997
Held various executive positions at
Shakhtspetsstroy Trust



Marat Tsomaev

Deputy Director for Economics
since 2010

2006–2010
Held various executive positions at
Severalmaz

2005–2006
Held various positions at Moscow Tax
Office No. 25, Federal Tax Service



Valeriy Kalashnikov

Deputy Director, Chief Surveyor
since 2013

2002–2013
Held various executive positions at
Severalmaz

1979–2002
Held various executive positions at
ALROSA's Udachny Division



Anatoliy Galkin

Chief Geologist
since 2009

2007–2009
Held various executive positions at
Severalmaz

2006–2007
Head of the Siberia Gold project,
A.P. Karpinsky Russian Geological
Research Institute (VSEGEI)

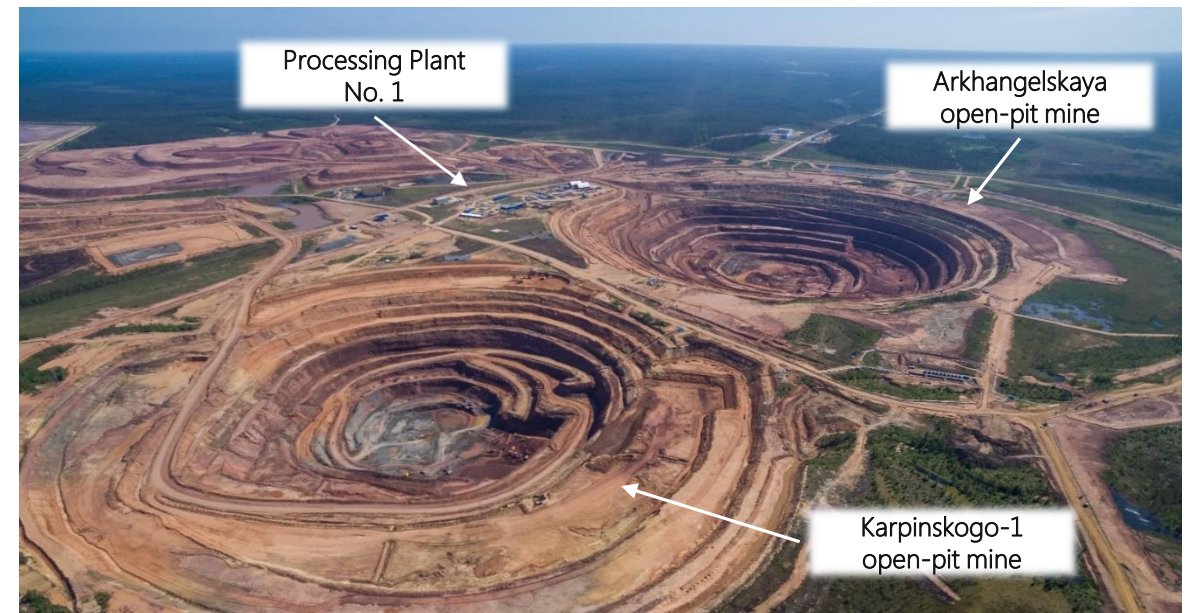
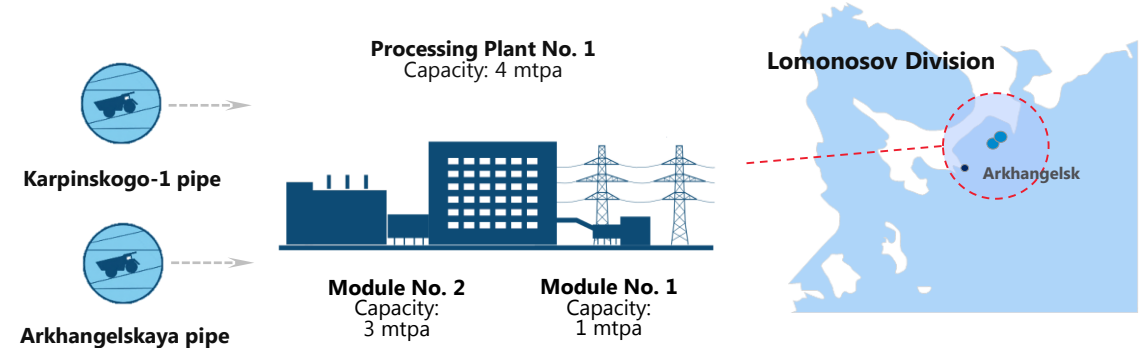
2004–2005
Head of Natural Resources,
Administration of the Krasnoyarsk
Territory

Company Overview

Comments

- Severalmaz has been part of ALROSA Group since 1997 – 99.6% ownership
- The company is licensed to develop the Lomonosov deposit, Europe's largest diamond deposit
- **Location:** town of Svetly, 105 km away from Arkhangelsk
- The deposit consists of 6 kimberlite pipes located close to each other and stretching for 9.5 km from the north to the south: Arkhangelskaya, Karpinskogo-1, Karpinskogo-2, Lomonosov, Pomorskaya and Pionerskaya
- Currently, the company is mining 2 south kimberlite pipes, Arkhangelskaya and Karpinskogo-1
- **Reserves and resources:** resources of 219 m ct (20,6% of the Group's resources), including reserves of 73,9 m ct (11,8% of the Group's reserves)

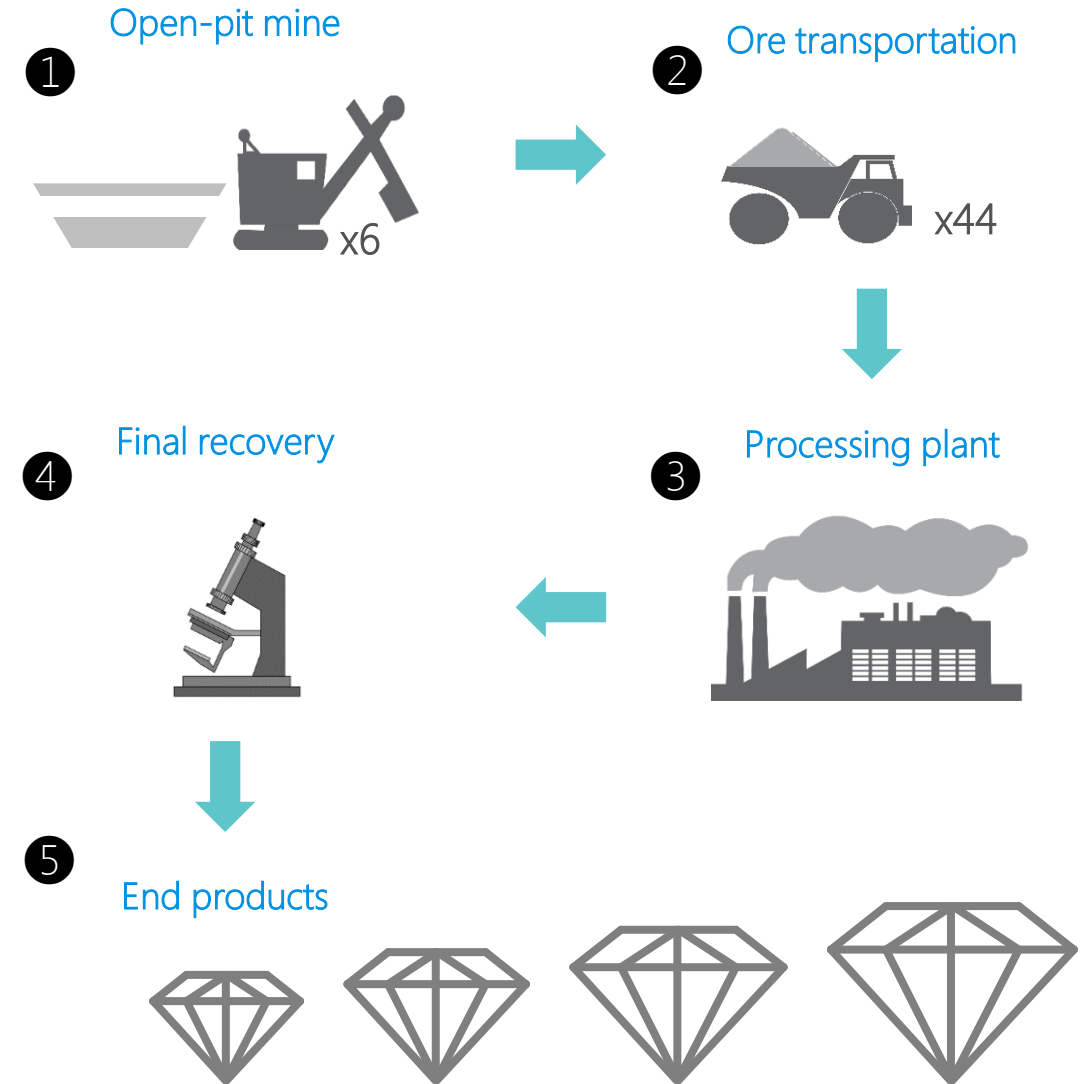
Location



Production Process Scheme

Comments

- 1 Open-pit mine:** rock mass is removed with hydraulic excavators – 6 excavators with bucket capacity of 7 to 15 m³
- 2 Transportation:** dump trucks are used to transport the rock mass from the mine to the processing plant – 44 dump trucks with loading capacity of up to 90 t
- 3 Processing plant** consists of 2 lines (1 and 3 mtpa) with 5 key processing stages (see page 12)
- 4 Final recovery** is carried out in the processing plant. At this stage, diamonds are extracted from concentrates, pre-classified and sorted
- 5 End products** are packed and sent to the United Selling Organisation of ALROSA for preliminary valuation and subsequent sale



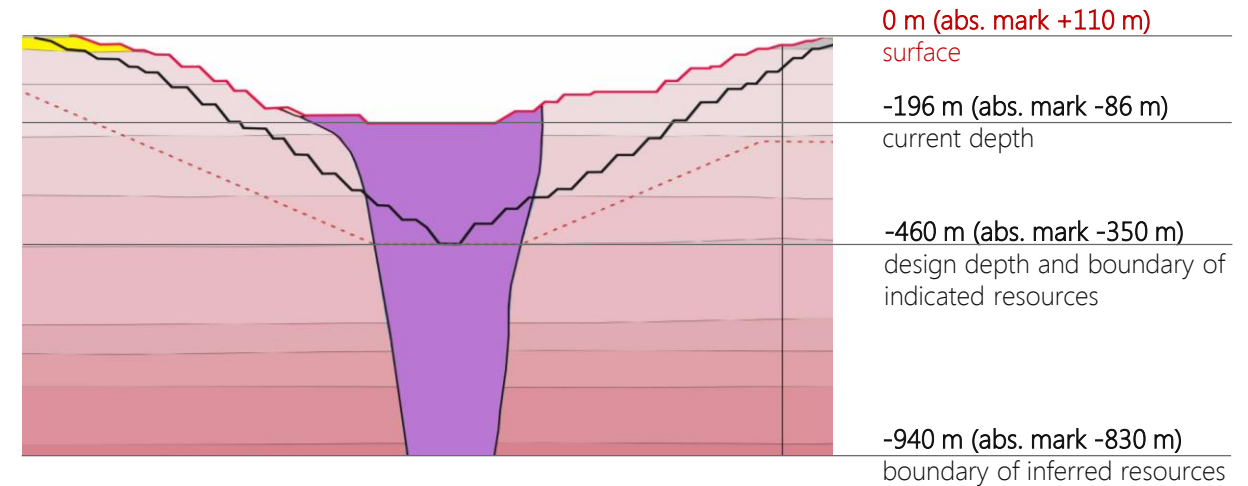
Arkhangelskaya Pipe

Highlights

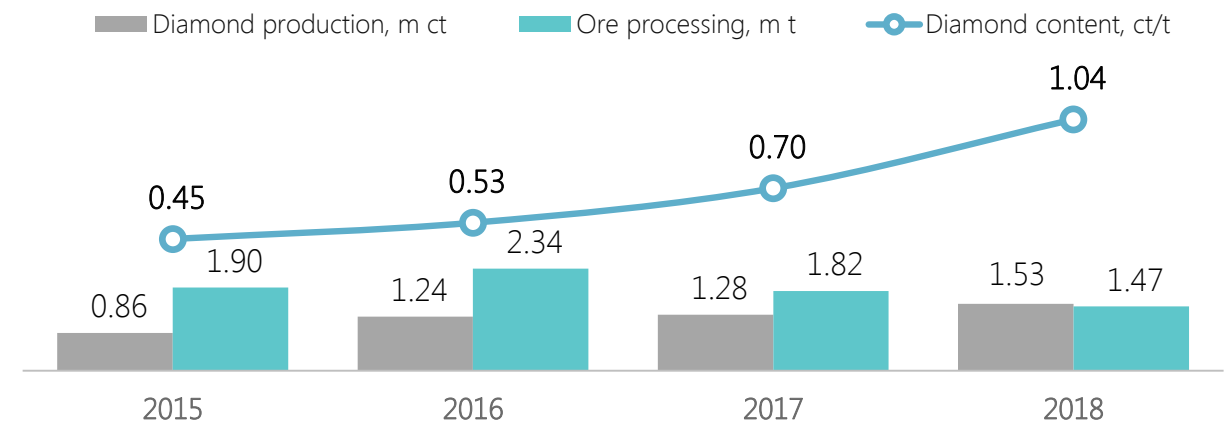
- Arkhangelskaya pipe has been mined since 2005
- Expected life of mine: 2031
- Current depth: **196 m** (design depth: **460 m**)
- Resources (including reserves):
 - indicated – 50 m ct
 - inferred – 49 m ct

- Operating results for 2018:
 - diamond production: 1.53 m ct (ca. 4% of the Group's production)
 - ore processing: 1.47 m t (ca. 4% of the Group's processing)
 - diamond content: 1.04 ct/t (vs the Group's average of 0.91 ct/t)

Arkhangelskaya pipe



Operating performance

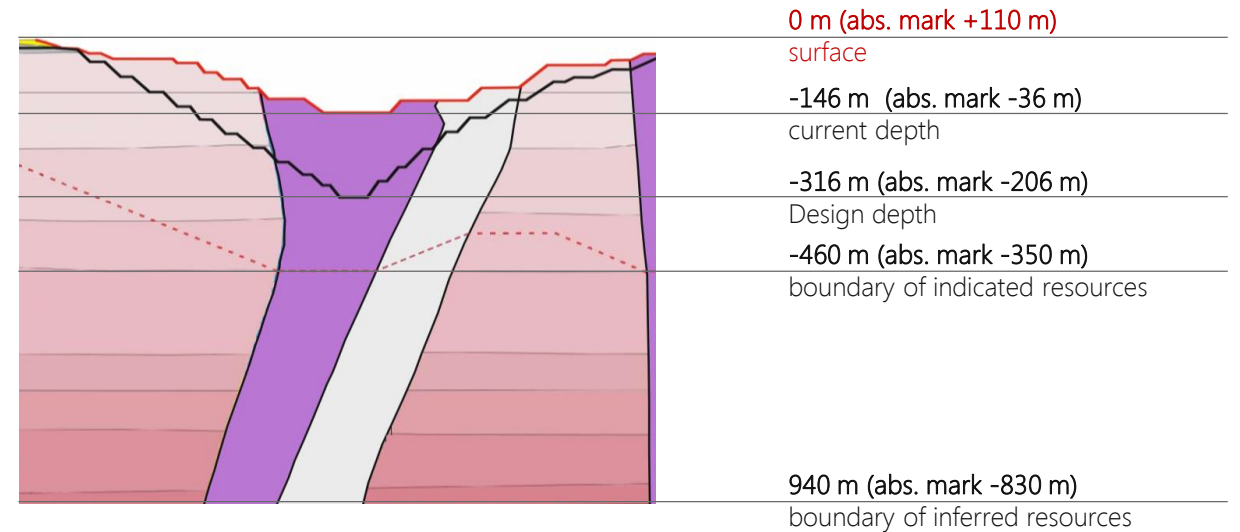


Karpinskogo-1 Pipe

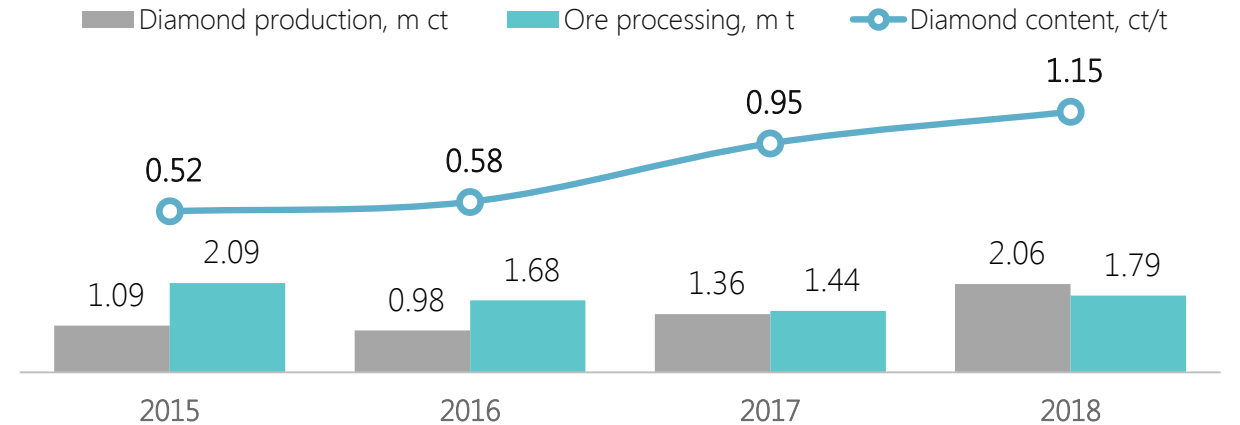
Highlights

- Karpinskogo-1 pipe has been mined since 2009
- Expected life of mine: 2028
- Current depth: **146 m** (design depth: **316 m**)
- Resources (including reserves):
 - indicated – 26,5 m ct
 - inferred – 10 m ct
- Operating results for 2018:
 - diamond production: 2.06 m ct (ca. 6% of the Group's production)
 - ore processing: 1.79 m t (ca. 4% of the Group's processing)
 - diamond content: 1.15 ct/t (vs the Group's average of 0.91 ct/t)

Karpinskogo-1 pipe



Operating performance



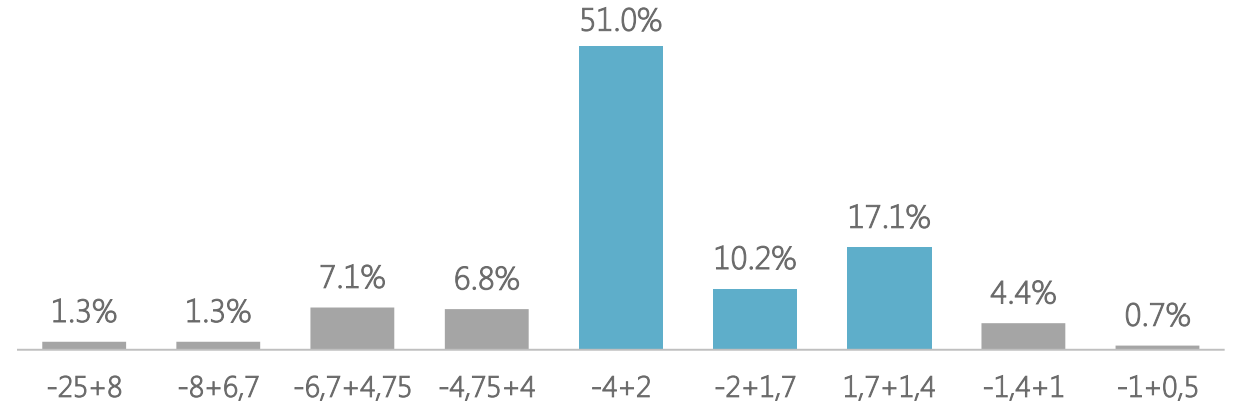
Products

Comments

- Commercial size of diamonds – 1.4 mm
- The bulk of the produced diamonds are 2 to 4 mm in size
- Diamonds over 4 mm in size make up 15% of total diamonds sold in volume terms (carats) and 40% in value terms
- Gem and near-gem quality diamonds account for 82% of the total volume of diamonds produced
- Most of the diamonds are colorless, but some are colored: yellow, green, pink, etc.

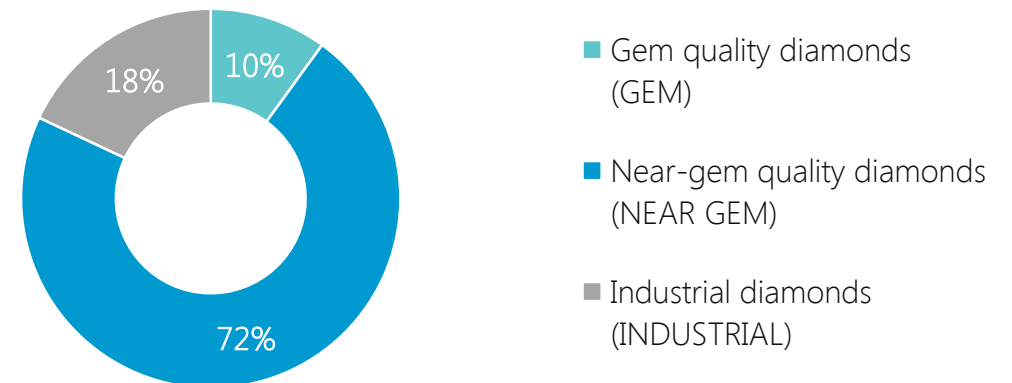
Diamonds by size, mm

% of the total volume of diamonds produced



Diamonds by quality

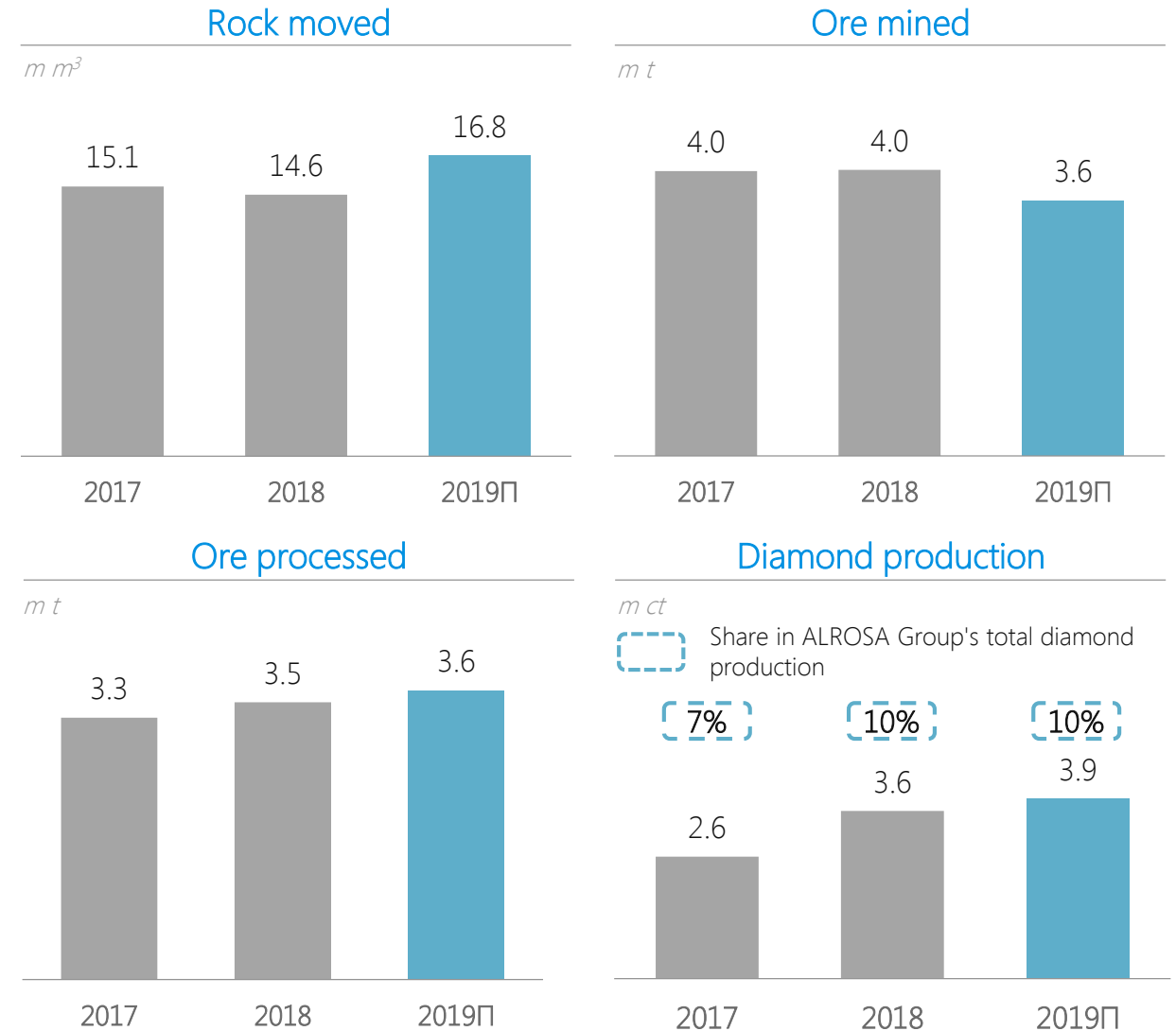
% of the total volume of diamonds produced



Operating Performance

Comments

- Severalmaz is one of ALROSA Group's key growth projects to be ramped up to its full design capacity of 4 mtpa by 2020
- Diamond content is set to exceed 1 ct/t of ore
- Severalmaz operating results for 2018:
 - rock moved – 14.6 m m³
 - ore processed – 3.5 m t
 - ore mined – 4.0 m t
 - diamonds production – 3.6 m ct

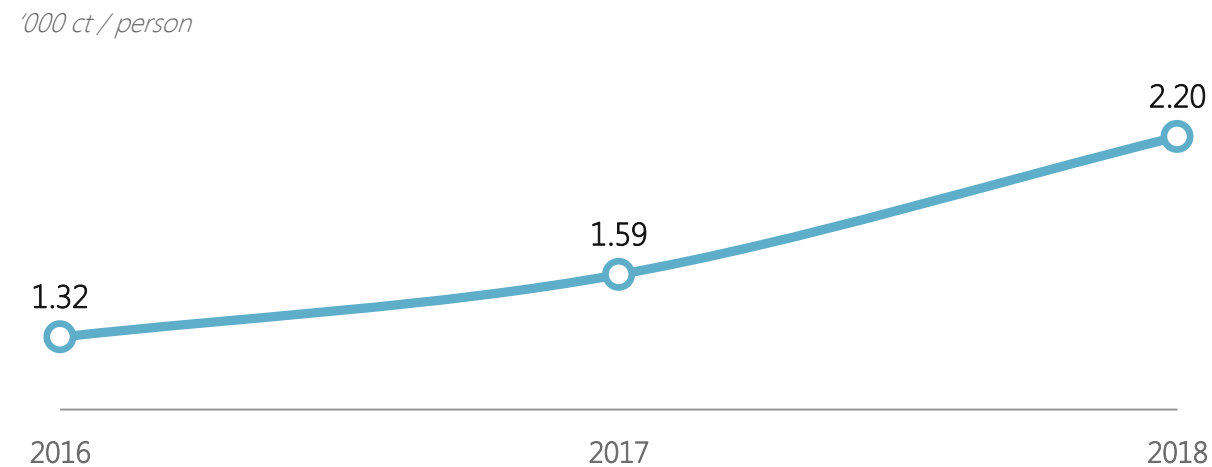


Operating Efficiency

Comments

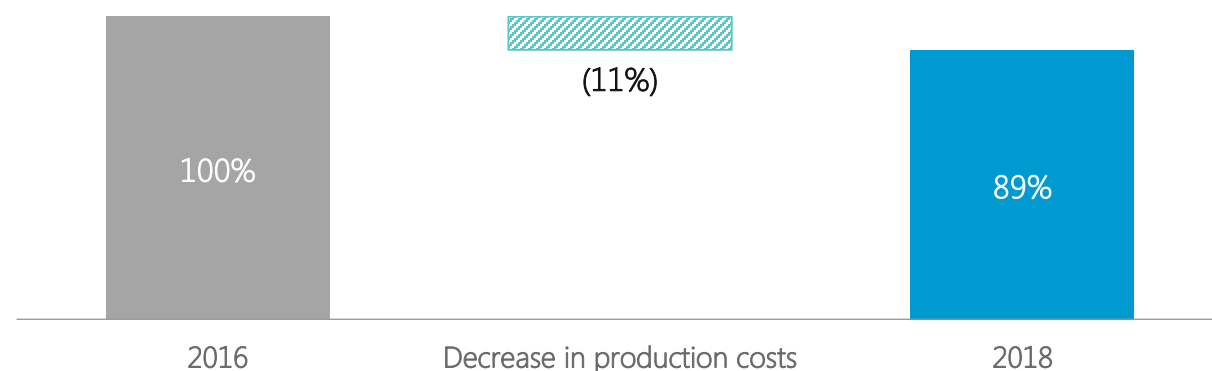
- Severalmaz implements a number of projects under operational efficiency program such as streamlining production processes, upgrading assets and headcount optimization:
 - key projects have road maps
 - 79 initiatives were submitted in 2018, 44 of them have been implemented
 - There were carried out 60 planned inspections of divisions in 2018 on 5 key indicators – sorting, rules compliance, cleanliness, standardization and improvement of the work
 - 10 professional skills competitions were held in 2018

Productivity growth



Lower unit cost

2016 value (\$30.9 / ct) = 100%



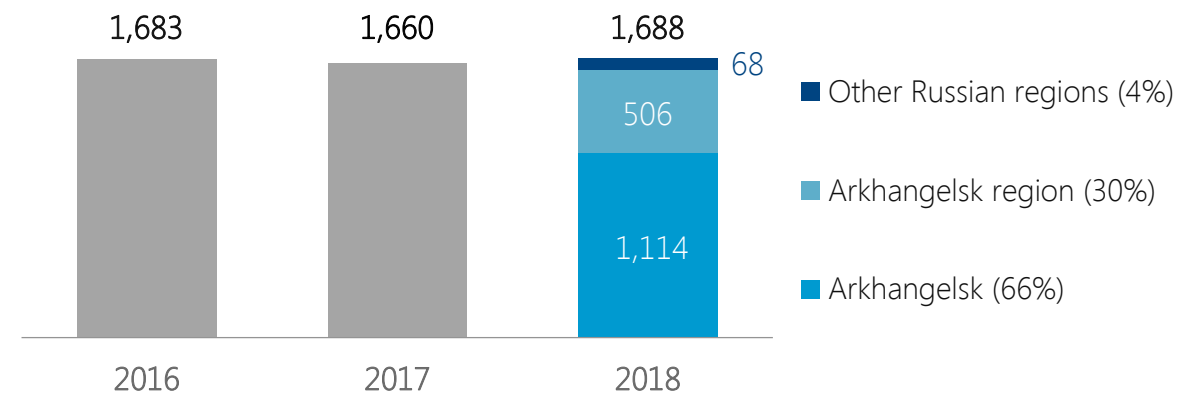
Personnel and Occupational Safety

Comments

- Severalmaz headcount: 1,688 employees
- 96% reside in Arkhangelsk and Arkhangelsk region
- Average employee age: 42 years
- **Employee safety:** Severalmaz is a state-of-the-art facility that adheres to high industrial safety management standards
 - LTIFR below 0.3 – slightly above average rate of ALROSA group
 - One accident was took place in 2018 without serious consequences for employee's health – currently he continues to work in the company

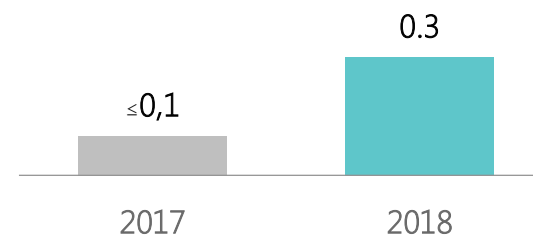
Average headcount

employees



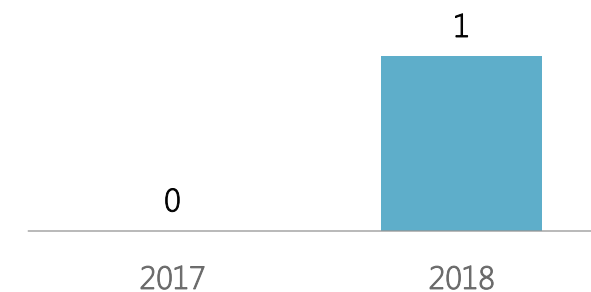
Lost Time Injury Frequency Rate (LTIFR)

Lost time injury frequency rate per 200,000 hours



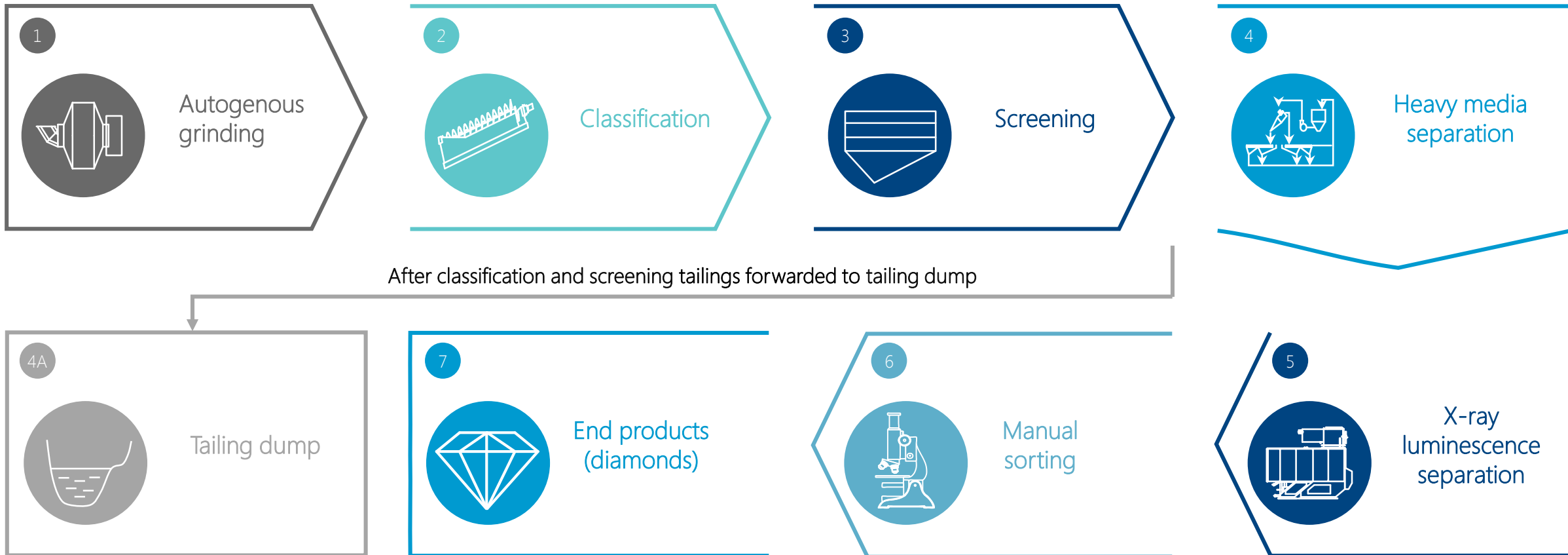
Occupational safety

number of accidents



Processing Of Diamondiferous Materials

Key stages of processing – from ore grinding to end product



Geography

Pomorskaya pipe

Outside the scope of the ALROSA Group mineral resource estimate

Pionerskaya pipe

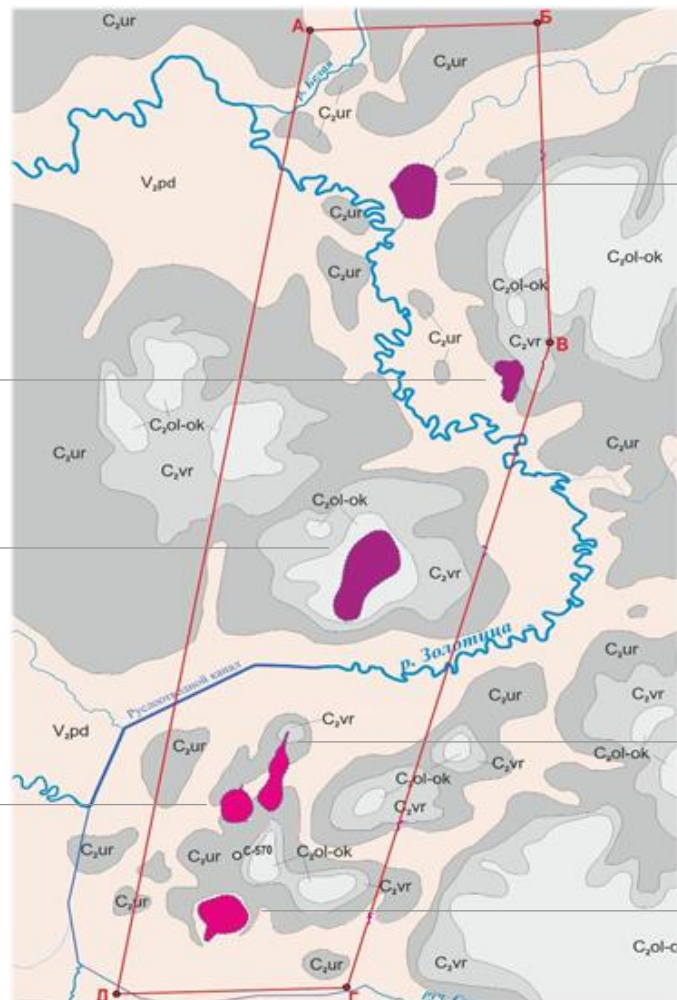
Mineral resources:

- diamond weight – 50 m ct
- ore weight – 101 m t
- diamond content – 0.49 ct/t

Karpinskogo-1 pipe

Mineral resources:

- diamond weight – 36 m ct
- ore weight – 28 m t
- diamond content – 1.31 ct/t



Lomonosov pipe

Mineral resources:

- diamond weight – 36 m ct
- ore weight – 75 m t
- diamond content – 0.48 ct/t

Karpinskogo-2 pipe

Outside the scope of the ALROSA Group mineral resource estimate

Arkhangelskaya pipe

Mineral resources:

- diamond weight – 96 m ct
- ore weight – 84 m t
- diamond content – 1.15 ct/t



THANK YOU!

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