

## ALROSA Q4 and 12M 2019 operating results

**Moscow, 23 January 2020 – ALROSA, a global leader in diamond production, reports its Q4 2019 diamond production of 8.8 m carats and sales of 8.2 m carats. Sales of rough and polished diamonds went up to \$916 m.**

- **Q4 diamond production** seasonally declined by 27% q-o-q to **8.8 m cts**. A 15% y-o-y reduction was due to lower production at the Jubilee pipe and the International underground mine. **12M** output increased by 5% to **38.5 m cts**, driven by higher production at the Botuobinskaya pipe and ramp-up at the V.Munskoye deposit.
- **Q4 ore and gravels processing** seasonally down by 58% q-o-q (-3% y-o-y) to **7.2 mt** (seasonal suspension of operations at alluvial deposits). **12M** numbers were up by 2% to **41.3 mt**, mainly due to the V.Munskoye deposit launch and increased productivity at the Nyurba Division.
- **Ore and gravels inventories as at the end of Q4 2019** seasonally increased by 12% q-o-q (up 11% y-o-y) to 26.5 mt.
- **Q4 average diamond grade** stood at **1.22 cpt**, representing a seasonal rise of 72% q-o-q. **In 12M diamond grade** improved by 3% to **0.93 cpt**, driven by an increase in high-grade ore processing at the Botuobinskaya pipe.
- **Q4 diamond sales** increased by 28% q-o-q (down 9% y-o-y) to **8.2 m cts**, including 5.9 m cts of gem-quality diamonds (up 38% q-o-q and up 13% y-o-y), amid stabilising demand as the market is gradually turning into balance (for more details see page 3). **12M** sales decreased by 12% to **33.4 m cts**.
- **Diamond inventories as at the end of Q4 2019** increased by 33% y-o-y to **22.6 m cts**, with diamond production exceeding sales volumes throughout the year.
- **Q4 average realised prices for gem-quality diamonds** rose by 9% q-o-q (down 3% y-o-y) to **\$148/ct**, driven by an increased share of medium- and large-size diamonds. **12M** prices were at **\$133/ct** (down 19%).
- **Q4 diamond price index** declined by 2% q-o-q, with the average for **12M 2019** going down by 6% vs 12M 2018.
- **Revenue from rough and polished diamond sales** for **Q4** increased by 50% q-o-q (up 8% y-o-y) to **\$916 m**, with the total for **12M** coming in at **\$3,338 m** (down 26%). **Q4 diamond sales** increased to **\$888 m** (up 48% q-o-q and up 8% y-o-y), with the **12M sales** amounting to **\$3,273 m** (down 26%).

### Diamond market overview

- In Q4 2019, the market environment normalized as consumer sentiment in the US improved ahead of the holiday season. Preliminary data on US sales show an overall successful Christmas period. Online sales are the key driver of demand for diamond jewellery (according to Mastercard data, Christmas sales of jewellery went up by 2%, while online sales delivering a growth of 9%).
- Midstream destocking came on the back of reduced diamond supply and a decline in cutting and polishing operations, along with a rise in demand for some categories of polished diamonds, driven by orders from the US in the run-up to the Christmas season.
- Flexible sales approach of diamond miners helped stabilise the demand. Cutting and polishing companies increased their production and volumes of purchased diamonds ahead of Q1 2020, when jewellery businesses usually start restocking following the Christmas season.

*Hereinafter, data on Q4 2019 and 12M 2019 production, sales, prices, and inventories is preliminary and may be updated. Data shown does not include consolidation of Kristall Production Corporation, which was acquired by ALROSA Group in October 2019. The consolidation will be included in the 2019 financial results of ALROSA Group, scheduled for release on 10 March 2020. Data on Kristall's production, sales and inventories shown for information purposes on pages 3 and 5 is preliminary and may be updated. Data on the diamond market is the Company's estimate.*

**Contacts for investors:**

Sergey Takhiev  
[st@alrosa.ru](mailto:st@alrosa.ru)  
+7 (985) 760-55-74

**Media:**

[smi@alrosa.ru](mailto:smi@alrosa.ru)  
+7 (495) 620-92-50, ext. 1426

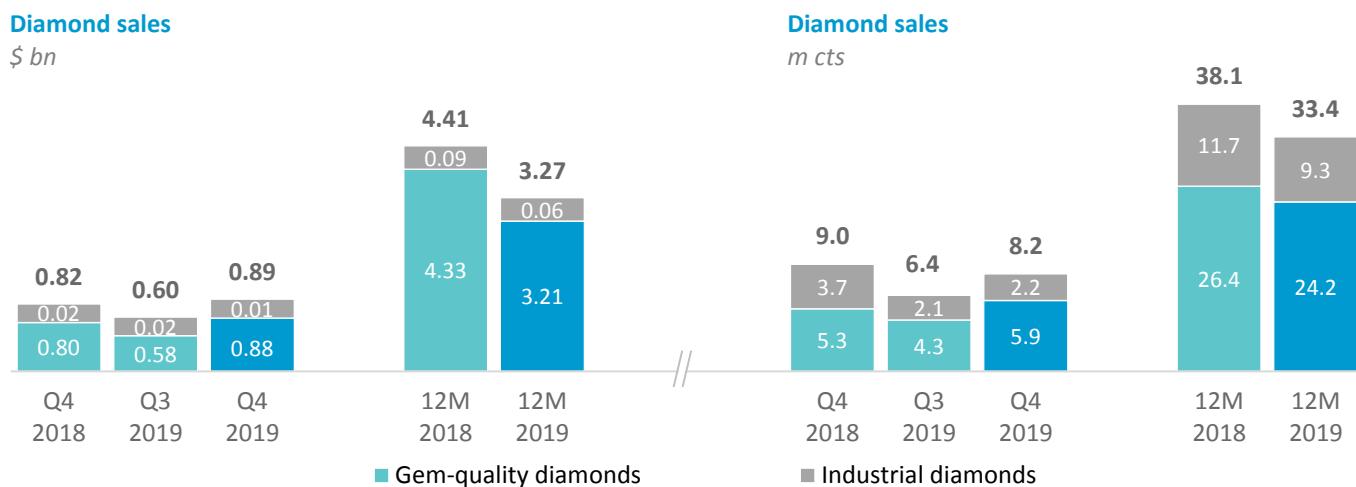
**Key events in the next three months ([Investor calendar](#))**

<b>10 February</b>	January 2020 sales results
<b>10 March</b>	2019 IFRS results Briefing with analysts in London
<b>11 March</b>	February 2020 sales results
<b>10 April</b>	March 2020 sales results
<b>16 April</b>	Q1 2020 Trading update

## PRELIMINARY SALES RESULTS

*Q4 sales: 8.2 m cts*

- **In Q4 2019, diamond sales (ex. polished diamonds) increased by 1.8 m cts q-o-q to 8.2 m cts (up 28% q-o-q),** with sales of gem-quality diamonds improving by 1.6 m cts to 5.9 m cts (up 38% q-o-q) amid a gradual recovery in diamond demand.
- On a y-o-y basis, gem-quality diamond sales grew by 13%. Industrial diamond sales went up by 9% q-o-q to 2.2 m cts and accounted for 27% of Q4 sales.



*12M sales: 33.4 m cts*

- **12M diamond sales** decreased by 4.6 m cts (down 12%) and totalled 33.4 m cts on the back of lower demand and midstream destocking.

*Inventories: 22.6 m cts*

- **Diamond inventories as at the end of Q4 2019 totalled 22.6 m cts** (up 0.9 m cts, or 4% q-o-q). As compared to the previous year, inventories went up by 5.6 m cts (up 33%) due to both decreased sales and an increase in output. In October 2019, ALROSA Group consolidated Kristall Production Corporation, with its rough diamond inventories standing at 0.3 m cts as at the end of Q4 2019 (included in total diamond inventories).

*Q4 2019  
Total sales: \$916 m  
Diamond sales: \$888 m*

- **Total sales in Q4 2019 amounted to \$916 m**, including \$888 m (up 48% q-o-q) in diamond sales (ex. polished diamonds), with a 28% q-o-q sales growth in carats due to a larger share of gem-quality diamond sales and a reduced share of small-size diamonds. An 8% y-o-y increase in sales amid a 9% reduction in sales in carats came as a result of a larger share of gem-quality diamond sales.

- **Q4 gem-quality diamond sales** in value terms increased by 50% q-o-q to \$877 m, driven by a 38% uptick in sales in carats and a rise in the average realised price. On a y-o-y basis, gem-quality diamond sales improved by 9% as a result of sales in carats going up by 13% against the backdrop of a 3% decline in the average realised price, mostly due to the price index reduction.

*12M 2019  
Total sales: \$3,338 m  
Diamond sales: \$3,273 m*

- **12M total sales amounted to \$3,338 m (down 26%),** including \$3,273 m in diamond sales (ex. polished diamonds) (down 26%).
- **12M gem-quality diamond sales** in value terms amounted to \$3,211 m, down by 26% amid an 8% decline in sales in carats and a 19% drop in the average realised price.

- **Polished diamond sales** (ex. Kristall sales – see below) **for Q4 and 12M** amounted to \$28 m (up 2.9 times q-o-q and up 31% y-o-y) and \$65 m (down 32%), respectively.
- **Q4 average realised prices for gem-quality diamonds rose by 9% q-o-q to \$148/ct** due to a lower share of small-size diamonds. In **12M**, average realised prices went down by 19% to **\$133/ct**.

#### Average realised prices for gem-quality diamonds

\$/ct

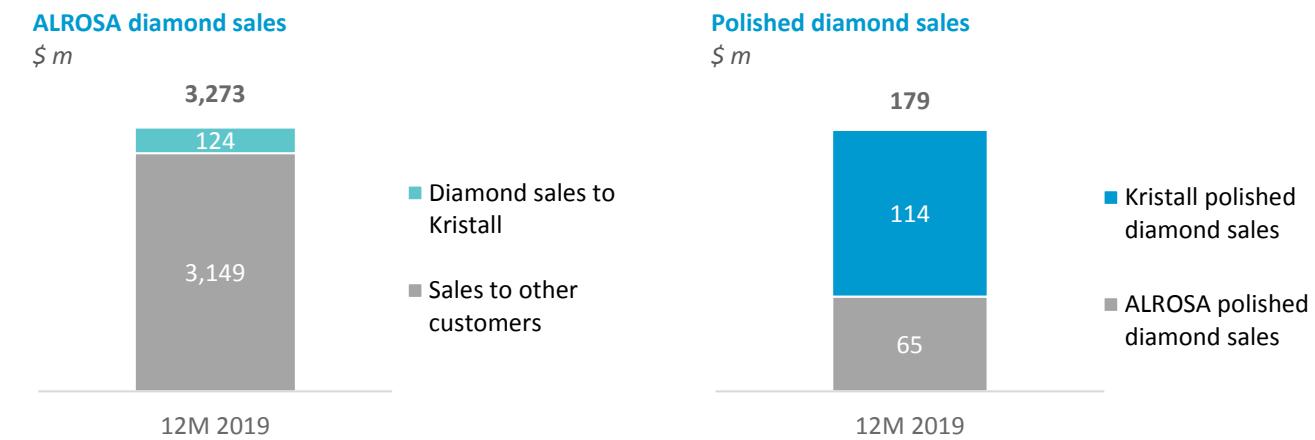


- **In Q4 2019, the diamond price index** lost 2% q-o-q, with the average index for 12M decreasing by 6% y-o-y. During 12M 2019 (December 2018 to December 2019), the diamond price index decreased by 9.1%.

#### Gem-quality diamond price indices



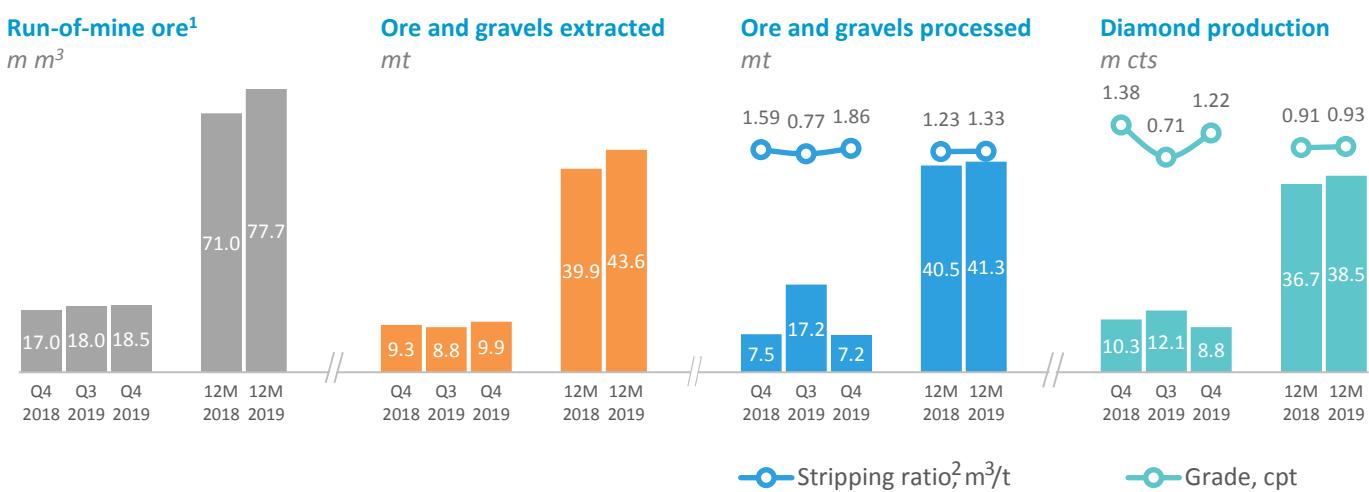
- **Kristall Production Corporation:** in October 2019, ALROSA Group consolidated Kristall Production Corporation. Diamond sales by ALROSA Group include sales to Kristall, which in 12M accounted for \$124 m out of \$3,273 m. In 12M 2019, polished diamond sales by Kristall totalled \$114 m.



## PRODUCTION

Production: 8.8 m cts

- **Q4 diamond production** saw a seasonal reduction by 27% q-o-q to 8.8 m cts (seasonal suspension of operations at alluvial deposits). A 15% y-o-y decline was caused by a drop in diamond production at the Jubilee pipe and the International underground mine.
- **12M production** grew by 5% y-o-y to 38.5 m cts. The key drivers are the ramp-up of production at the V.Munskoye deposit (launched in Q4 2018), and increased output at the Botuobinskaya pipe of the Nyurba Division as a result of (a) larger volumes of higher-grade ore processing and (b) operational efficiency improvement projects.



- **Q4 ore and gravels inventories** delivered a seasonal growth of 12% q-o-q to 26.5 mt. On a y-o-y basis, inventories went up by 11%, mainly driven by lower volumes of gravels processing in 2019 at the Almazy Anabara deposits (down 11%) as gravels extraction stayed at the same level as in 2018 (up 1%).
- **Q4 run-of-mine ore** increased by 3% q-o-q to 19 m m<sup>3</sup>, mainly due to a seasonal increase in preparatory pre-mining operations at Almazy Anabara.
- **On a y-o-y basis**, run-of-mine ore increased by 9% both in **Q4 2019** and **12M 2019** (to 77.7 m m<sup>3</sup>), driven mostly by the launch of production at the V.Munskoye deposit and implementation of design solutions at the Lomonosov Division's Arkhangelskaya pipe (Severalmaz) (cutback for pit deepening).
- **Q4 stripping ratio<sup>2</sup>** went up by 2.4 times q-o-q to 1.86 m<sup>3</sup>/t mostly due to a seasonal suspension of gravels processing at the Almazy Anabara deposits coupled with a seasonal increase in rock moved by 3.8 times q-o-q. A 17% y-o-y rise was mainly driven by an increase in stripping operations as part of the design solutions implementation at Severalmaz as well as higher annual volumes of rock moved during pit deepening at the Nyurbinskaya pipe.
- **12M stripping ratio** was 1.33 m<sup>3</sup>/t (up 8%). The growth was primarily driven by the launch of production at the V.Munskoye deposit, an increase in stripping

<sup>1</sup> Less pre-stripping.

<sup>2</sup> The stripping ratio is calculated as rock moved in cubic metres (less pre-stripping) divided by ore and gravels processed (in tonnes).

operations as part of the design solutions implementation at Severalmaz, and higher annual volumes of rock moved at the Nyurbinskaya pipe.

- **Q4 open-pit mining** increased by 15% q-o-q to 6 m cts as production at the Jubilee pipe went up following the re-launch of processing plant No. 14 and processing of the deposit's higher-grade ores. A 9% y-o-y decline was caused by a 39% y-o-y drop in diamond production at the Jubilee pipe.

**12M open-pit mining** totalled 22.9 m cts, up 16%. The growth was driven by an increase in high-grade ore processing at the Botuobinskaya pipe and the launch of the V.Munskoye deposit.

In **Q4 2019** and **12M 2019**, **open-pit mining** accounted for 67% and 59% of total production, respectively.

- A 66% q-o-q **increase in underground mining in Q4 2019** to 2.6 m cts was associated with growth in production at the Aikhal underground mine (for more details see page 9) and higher processing volumes at the International underground mine (for more details see page 11). A 22% y-o-y **decrease in underground mining in Q4 2019** and a 7% decrease in **12M 2019** stemmed from a drop in ore processing at the International underground mine caused by a challenging mining and geological environment.

In **Q4 2019** and **12M 2019**, **underground mining** accounted for 29% and 20% of total production, respectively.

- **Q4 alluvial mining** saw a 95% q-o-q drop to 0.3 m cts due to seasonal suspension of production at alluvial deposits. A 41% y-o-y decline in Q4 and an 11% decline in **12M** were due to a production decrease at the Nyurba Division's alluvial deposits (for more details see page 14).

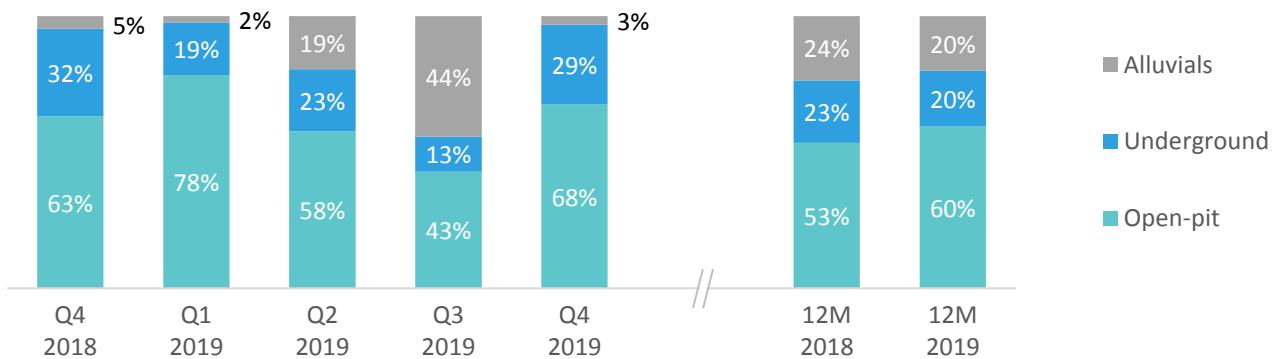
In **Q4** and **12M**, **production at alluvial deposits** accounted for 3% and 20% of total production, respectively.

*Average diamond grade:*

Q4 – 1.22 cpt  
12M – 0.93 cpt

- **Q4 average diamond grade** saw a seasonal increase of 72% q-o-q to 1.22 cpt due to a seasonal suspension of production at lower-grade alluvial deposits. A 12% y-o-y drop was mostly due to a lower share of high-grade ore processing at the Aikhal and International underground mines. **12M average diamond grade** went up by 3% to 0.93 cpt, driven by an increase in high-grade ore processing at the Botuobinskaya pipe.

#### Diamond production by mining type



## PERFORMANCE BY DIVISION

### Aikhal Division operational overview

**Aikhal Division accounted for 36% and 26% in ALROSA Group's total diamond production in Q4 2019 and 12M 2019, respectively.**

	Q4 2019	Q3 2019	q-o-q	Q4 2018	y-o-y	12M 2019	12M 2018	y-o-y
Ore processing, '000 t	2,407	1,670	44%	2,649	(9%)	9,153	9,412	(3%)
Grade, cpt	1.32	0.78	70%	1.65	(20%)	1.11	1.26	(12%)
Diamond production, '000 cts	3,180	1,298	2.4x	4,373	(27%)	10,147	11,850	(14%)

*Aikhal Division:*

*Jubilee pipe*

*Aikhal pipe*

*Komsomolskaya pipe*

*Zarya pipe*

*Location: Republic of Sakha (Yakutia), near Aikhal settlement, 485 km away from Mirny town*

**Q4 diamond production** grew by 2.4 times q-o-q (down 27% y-o-y) to **3,180,000 cts**. Ore processed in this period amounted to **2,407,000 t**, up 44% q-o-q (down 9% y-o-y).

**12M diamond production** was down 14% to **10,147,000 cts**, driven by lower average diamond grade due to increased production of lower-grade ore from deposit flanks. Ore processed in this period amounted to **9,153,000 t** (down 3%).

#### Open-pit mining

*Jubilee:*

- A 95% q-o-q increase in diamond production in Q4 came as a result of resumed ore processing after a scheduled preventive maintenance shutdown of processing plant No. 14 in Q3 2019 (from 18 July to 19 August). For drivers behind a 39% y-o-y decrease in diamond production *see the 12M performance below*.
- The 12M diamond production decreased by 21% due to (a) increased production of lower-grade ore from the flanks of the Jubilee pipe and b) a 17% y-o-y decrease in ore processing driven by the processing of ore from the Aikhal and Komsomolskaya pipes at processing plant No. 14.

*Komsomolskaya:*

- A 70% q-o-q production decline in Q4 was caused by (a) large-scale bulk sampling at the Zarya pipe in December and (b) a decrease in average diamond grade (down 36% q-o-q) due to the processing of the Komsomolskaya pipe's ore stockpiles. A 3.6x y-o-y growth was achieved in view of an emergency shutdown of the autogenous mill at the processing plant back in Q4 2018.
- 12M diamond production remained almost flat y-o-y (down 1%).

*Zarya:*

- Q4 saw the launch of the Zarya pipe, with its production standing at 38,000 cts.

#### Underground mining

*Aikhal:*

- A 5.7x q-o-q increase in Q4 diamond production was attributable to a 4.2x rise in ore processing due to higher capacity utilisation at both processing plants No. 8 and No. 14, and a 35% increase in average diamond grade due to the processing of higher-grade ore from the north-eastern ore body. A 5% y-o-y decrease in diamond production was driven by a 26% y-o-y drop in

ore processing caused by large-scale bulk sampling of the Zarya pipe's ore at processing plant No. 8 in Q4 2019.

- A 6% growth in 12M diamond production was driven by a higher-grade of ore processed.

## Mirny Division operational overview

**Mirny Division accounted for 9% and 8% in ALROSA Group's total diamond production in Q4 2019 and 12M 2019, respectively.**

		Q3 2019	q-o-q	Q4 2018	y-o-y	12M 2019	12M 2018	y-o-y
Ore and gravels processing, '000 t	1,270	1,813	(30%)	1,500	(15%)	5,041	4,983	1%
Grade, cpt	0.64	0.39	63%	0.95	(32%)	0.60	0.84	(29%)
Diamond production, '000 cts	818	715	14%	1,418	(42%)	3,006	4,196	(28%)

*Mirny Division:*

*Mir pipe*

*International pipe*

*Alluvial deposits*

*Location: Republic of Sakha (Yakutia), Mirny town, 220 km south of the Arctic Circle*

**Diamond production in Q4** totalled **818,000 cts** (up 14% q-o-q and down 42% y-o-y). Ore and gravels processed in this period amounted to **1,270,000 t**, down 30% q-o-q and down 15% y-o-y.

**In 12M, diamond production** was **3,006,000 cts** (down 28%). Ore and gravels processed in this period amounted to **5,041,000 t** (up 1% y-o-y).

### Underground mining

International:

- A 69% q-o-q growth in Q4 production was attributable to (a) a 63% q-o-q increase in ore processing as result of scheduled preventive maintenance at processing plant No. 3 in September and (b) higher average diamond grade due to the processing of higher-grade ore from the underpit reserves. For drivers behind a 51% y-o-y decrease in diamond production *see the 12M performance below*.
- A 37% decline in 12M production stemmed from a decrease in ore processing caused by challenging mining and geological conditions in 2019.

### Alluvial mining

- A seasonal 37% q-o-q decrease in Q4 diamond production (down 1% y-o-y) came on the back of a 33% q-o-q decline in gravels processing (down 9% y-o-y) caused by a seasonal suspension of gravels dredging and alluvial mining in November.
- A 17% increase in diamond production in 12M 2019 was driven by a 5% growth in gravels processing due to (a) shorter than planned maintenance hours at processing plant No. 3 in 2019, and (b) operations at deposits with a higher average grade in 2019 (up 11% y-o-y).

## Udachny Division operational overview

Udachny Division accounted for 15% and 15% in ALROSA Group's total diamond production in Q4 2019 and 12M 2019, respectively.

	Q4 2019	Q3 2019	q-o-q	Q4 2018	y-o-y	12M 2019	12M 2018	y-o-y
Ore and gravels processing, '000 t	2,140	2,433	(12%)	1,922	11%	8,793	6,862	28%
Grade, cpt	0.61	0.70	(13%)	0.66	(9%)	0.65	0.57	13%
Diamond production, '000 cts	1,297	1,694	(23%)	1,276	2%	5,674	3,929	44%

*Udachny Division:*

*Udachnaya pipe*

*Zarnitsa pipe*

*V.Munskoye deposit*

*Alluvial deposits*

*Location: Republic of Sakha (Yakutia), 550 km north of Mirny town*

**Q4 diamond production** decreased by 23% q-o-q (up 2% y-o-y) to **1,297,000 cts**.

Ore and gravels processed in this period amounted to **2,140,000 t**, a decrease of 12% q-o-q (up 11% y-o-y).

**12M diamond production** was up 44% to **5,674,000 cts**. Ore and gravels processed in this period amounted to **8,793,000 t**, an increase of 28%.

### Open-pit mining

Zarnitsa:

- In Q4, a 5% q-o-q (10% y-o-y) growth in diamond production was driven by a 5% q-o-q (6% y-o-y) increase in ore processing to boost the capacity of processing plant No. 12 during the commissioning of the thickening section by utilising the physical properties of the ore from the deposit.
- In 12M, diamond production dropped by 20% due to an 18% y-o-y decrease in ore processing associated with increased processing of ore from the Udachnaya pipe and the processing of ore from the Zapolyarnaya pipe of the V.Munskoye deposit.

Zapolyarnaya:

- In Q4, a 29% q-o-q drop was associated with (a) a 28% q-o-q decrease in ore processing due to a reduction in capacity of processing plant No. 12 caused by the commissioning of the plant's tailings thickening section and (b) a lower average grade due to processing of ore from lower-grade blocks. For drivers behind a 66% y-o-y increase in diamond production see *the 12M performance below*.
- In 12M, diamond production went up by 7.4 times due to (a) higher processing volumes (up 6.6 times for 12M) as the deposit reached its design capacity and (b) a higher average grade thanks to processing of higher-grade ores.

### Underground mining

Udachny:

- In Q4, there was a 25% q-o-q decrease in diamond production caused by (a) lower processing volumes due to the commissioning works at the processing plant's tailings thickening section and (b) processing of higher-grade ores (down 17% q-o-q). A 10% y-o-y decrease resulted from a 24% y-o-y drop in the average grade due to processing lower-grade ores.
- In 12M, a 23% y-o-y growth came on the back of a 32% increase in ore processing as a result of the Udachny underground mine's scheduled ramp-up to design capacity.

**Alluvial mining**

- In Q4, a 49% q-o-q (71% y-o-y) decrease in diamond production resulted from lower processing volumes (down 25% q-o-q and 48% y-o-y) and lower ore grade (down 32% q-o-q and 44% y-o-y). This was mainly caused by the last of the Piropovy Placer alluvial deposit's inventories being processed and the processing of lower-grade gravels remaining at the alluvial deposits' ore stockpiles.
- A 7% growth in 12M diamond production was triggered by a 13% increase in the average grade due to the processing of ore from higher-grade blocks.

## Nyurba Division operational overview

Nyurba Division accounted for 27% and 27% in ALROSA Group's total diamond production in Q4 2019 and 12M 2019, respectively.

	Q4 2019	Q3 2019	q-o-q	Q4 2018	y-o-y	12M 2019	12M 2018	y-o-y
Ore and gravels processing, '000 t	495	875	(43%)	494	0.2%	2,456	2,111	16%
Grade, cpt	4.83	3.75	29%	4.58	6%	4.18	3.66	14%
Diamond production, '000 cts	2,393	3,284	(27%)	2,262	6%	10,267	7,719	33%

*Nyurba Division:*  
Nyurbinskaya pipe  
Botuobinskaya pipe  
Alluvial deposits

*Location:* Republic of Sakha (Yakutia), 200 km north-west of Nyurba town and 320 km north-east of Mirny town

**Q4 diamond production** decreased by 27% q-o-q (up 6% y-o-y) to **2,393,000 cts**. Ore and gravels processed in this period amounted to **495,000 t**, a decrease of 43% q-o-q (up 0.2% y-o-y).

**12M diamond production** increased by 33% to **10,267,000 cts**. Ore and gravels processed in this period amounted to **2,456,000 t**, an increase of 16%.

### Open-pit mining

Nyurbinskaya:

- In Q4, diamond production grew 2.1 times q-o-q driven by a 2.3-times q-o-q increase in processing volumes due to processing more of the deposit's ore at plant No. 16. A 34% decrease for the period is attributable to (a) a 28% drop in ore processing volumes due to stockpiling of ore in preparation for the reconstruction of the Nyurbinsky open pit and (b) an 8% decrease in the diamond grade of the processed ore.
- A 19% drop in 12M diamond production was associated with (a) a 9% reduction in processing and (b) an 11% decrease in the diamond grade of the processed ore.

Botuobinskaya:

- A 23% decrease in Q4 production resulted from (a) a 39% q-o-q drop in ore processing volumes due to processing more of the Nyurbinskaya pipe's ore at plant No. 16. A 2.3-times y-o-y increase (4 times for 12M) came on the back of higher processing volumes (up 2.4 times y-o-y, 3.3 times for 12M) due to (a) reduced processing of Nyurbinskaya pipe's ore due to stockpiling of ore in preparation for the Nyurbinsky open pit reconstruction and (b) operational efficiency improvement projects.

### Alluvial mining

- Q4 diamond production fell 98% due to the seasonal suspension of operations at processing plant No. 15. A 89% y-o-y decrease was due to the earlier suspension of the plant No. 15 operations in light of a colder October of 2019.
- A 36% drop in 12M production was caused by a 31% decrease in processing due to the exclusion of alluvials from the processing schedule of plant No. 16 and the processing of primary deposit ores from the Nyurbinskaya and Botuobinskaya pipes as part of the operational efficiency improvement programme.

### Lomonosov Division (Severalmaz) operational overview

Lomonosov Division accounted for 13% and 11% in ALROSA Group's total diamond production in Q4 2019 and 12M 2019, respectively.

	Q4 2019	Q3 2019	q-o-q	Q4 2018	y-o-y	12M 2019	12M 2018	y-o-y
Ore processing, '000 t	929	983	(5%)	886	5%	3,611	3,452	5%
Grade, cpt	1.21	1.21	0%	1.11	8%	1.17	1.05	11%
Diamond production, '000 cts	1,123	1,185	(5%)	987	14%	4,230	3,635	16%

*Lomonosov Division:*

*Arkhangelskaya pipe*

*Karpinskogo-1 pipe*

*Karpinskogo-2 pipe*

*Location: Arkhangelsk*

*Region, Russian*

*Federation*

**Q4 diamond production** decreased by 5% q-o-q (up 14% y-o-y) to **1,123,000 cts**.

Ore processing decreased by 5% q-o-q (up 5% y-o-y) to **929,000 t**.

**12M diamond production** was up by 16% y-o-y to **4,230,000 cts**. Ore processed in this period amounted to **3,611,000 t**, up 5% y-o-y.

#### Open-pit mining

- A 5% q-o-q decrease in Q4 diamond production was attributable to a 5% drop in ore processing due to the plant stoppage being rescheduled to Q4 for the purposes of equipment modernisation as part of the upgrade programme. For drivers behind a 14 % y-o-y increase in diamond production *see the 12M performance below*.
- A 16% growth in 12M diamond production was driven by (a) an 5% increase in ore processing thanks to improved plant capacity following the replacement of autogenous grinding mills' motors and (b) a higher average grade (up 8% y-o-y for Q4 and 11% for 12M) as a result of processing less lower-grade ores from the Karpinskogo-2 pipe in 2019 (in Q4 2019, no ore from the Karpinskogo-2 pipe was processed).

### Almazy Anabara operational overview

Almazy Anabara accounted for 0% and 13% in ALROSA Group's total diamond production in Q4 2019 and 12M 2019, respectively.

	Q4 2019	Q3 2019	q-o-q	Q4 2018	y-o-y	12M 2019	12M 2018	y-o-y
Gravels processing, '000 t	–	9,400	–	–	–	12,200	13,668	(11 %)
Grade, cpt	–	0.42	–	–	–	0.42	0.40	7%
Diamond production, '000 cts	–	3,939	–	–	–	5,161	5,420	(5%)

*Almazy Anabara: several alluvial deposits located in the north-west of the Republic of Sakha (Yakutia)*

**In Q4 2019, there was no diamond production** at the Almazy Anabara alluvial deposits due to seasonal suspension of production. In 12M 2019, diamond production declined by 5% y-o-y as a result of an 11% y-o-y decrease in gravels processing, which was triggered by a performance slump when processing gravels from the Khara-Mas alluvial deposit (characterised by higher content of heavy fraction) with average grade going up by 7% y-o-y.

Almazy Anabara conducts mining operations from May–June to September–October (weather permitting).

## APPENDICES

### Appendix 1. Diamond production

'000 cts	Q4 2019	Q3 2019	q-o-q	Q4 2018	y-o-y	12M 2019	12M 2018	y-o-y
<b>Aikhal Division</b>	<b>3,180</b>	<b>1,298</b>	<b>145%</b>	<b>4,373</b>	<b>(27%)</b>	<b>10,147</b>	<b>11,849</b>	<b>(14%)</b>
Jubilee pipe	1,843	944	95%	3,030	(39%)	7,181	9,063	(21%)
Aikhal underground mine	1,259	222	5.7x	1,332	(5%)	2,574	2,429	6%
Komsomolskaya pipe	40	133	(70%)	11	3.6x	354	357	(1%)
Zarya pipe	38	—	—	—	—	38	—	—
<b>Mirny Division</b>	<b>818</b>	<b>715</b>	<b>14%</b>	<b>1,418</b>	<b>(42%)</b>	<b>3,006</b>	<b>4,196</b>	<b>(28%)</b>
International underground mine	585	347	69%	1,181	(51%)	2,167	3,448	(37%)
Mir underground mine	—	—	—	—	—	—	30	—
Alluvial and technogenic deposits	234	369	(37%)	237	(1%)	839	718	17%
<b>Udachny Division</b>	<b>1,297</b>	<b>1,694</b>	<b>(23%)</b>	<b>1,276</b>	<b>2%</b>	<b>5,674</b>	<b>3,929</b>	<b>44%</b>
Udachny underground mine	740	983	(25%)	818	(10%)	3,125	2,530	23%
Zarnitsa pipe	193	184	5%	176	10%	763	952	(20%)
Zapolyarnaya pipe (V.Munskoye deposit)	342	483	(29%)	207	66%	1,530	207	7.4x
Alluvial deposits	22	43	(49%)	76	(71%)	256	240	7%
<b>Nyurba Division</b>	<b>2,393</b>	<b>3,284</b>	<b>(27%)</b>	<b>2,262</b>	<b>6%</b>	<b>10,267</b>	<b>7,719</b>	<b>33%</b>
Nyurbinskaya pipe	990	472	2.1x	1,498	(34%)	3,269	4,057	(19%)
Botuobinskaya pipe	1,386	1,793	(23%)	610	2.3x	5,530	1,379	4.0x
Alluvial deposits	18	1,019	(98%)	154	(89%)	1,468	2,283	(36%)
<b>Severalmaz</b>	<b>1,123</b>	<b>1,185</b>	<b>(5%)</b>	<b>987</b>	<b>14%</b>	<b>4,230</b>	<b>3,635</b>	<b>16%</b>
Arkhangelskaya pipe	549	598	(8%)	313	75%	2,091	1,530	37%
Karpinskogo-1 pipe	575	587	(2%)	628	(8%)	2,094	2,059	2%
Karpinskogo-2 pipe	—	—	—	46	—	45	46	(3%)
<b>Almazy Anabara</b>	—	<b>3,939</b>	—	—	—	<b>5,161</b>	<b>5,420</b>	<b>(5%)</b>
<b>Total</b>	<b>8,812</b>	<b>12,116</b>	<b>(27%)</b>	<b>10,316</b>	<b>(15%)</b>	<b>38,485</b>	<b>36,749</b>	<b>5%</b>

## Appendix 2. Ore and gravel processing

'000 t	Q4 2019	Q3 2019	q-o-q	Q4 2018	y-o-y	12M 2019	12M 2018	y-o-y
<b>Aikhal Division</b>	<b>2,407</b>	<b>1,670</b>	<b>44%</b>	<b>2,649</b>	<b>(9%)</b>	<b>9,153</b>	<b>9,412</b>	<b>(3%)</b>
Jubilee pipe	1,930	1,272	52%	2,327	(17%)	7,612	7,942	(4%)
Aikhal underground mine	215	51	4.2x	292	(26%)	467	500	(7%)
Komsomolskaya pipe	162	347	(53%)	30	5.4x	974	970	0.4%
Zarya pipe	100	—	—	—	—	100	—	—
<b>Mirny Division</b>	<b>1,270</b>	<b>1,813</b>	<b>(30%)</b>	<b>1,500</b>	<b>(15%)</b>	<b>5,041</b>	<b>4,983</b>	<b>1%</b>
International underground mine	103	63	63%	219	(53%)	392	557	(30%)
Mir underground mine	—	—	—	—	—	—	11	—
Alluvial and technogenic deposits	1,168	1,749	(33%)	1,281	(9%)	4,649	4,416	5%
<b>Udachny Division</b>	<b>2,140</b>	<b>2,433</b>	<b>(12%)</b>	<b>1,922</b>	<b>11%</b>	<b>8,793</b>	<b>6,862</b>	<b>28%</b>
Udachny underground mine	679	753	(10%)	567	20%	2,515	1,911	32%
Zarnitsa pipe	786	748	5%	741	6%	3,018	3,663	(18%)
Zapolyarnaya pipe (V.Munskoye deposit)	545	758	(28%)	363	50%	2,388	363	6.6x
Alluvial deposits	130	174	(25%)	251	(48%)	872	925	(6%)
<b>Nyurba Division</b>	<b>495</b>	<b>875</b>	<b>(43%)</b>	<b>494</b>	<b>0.2%</b>	<b>2,456</b>	<b>2,111</b>	<b>16%</b>
Nyurbinskaya pipe	266	118	2.3x	371	(28%)	821	904	(9%)
Botuobinskaya pipe	212	350	(39%)	87	2.4x	1,012	304	3.3x
Alluvial deposits	17	407	(96%)	36	(53%)	623	903	(31%)
<b>Severalmaz</b>	<b>929</b>	<b>983</b>	<b>(5%)</b>	<b>886</b>	<b>5%</b>	<b>3,611</b>	<b>3,452</b>	<b>5%</b>
Arkhangelskaya pipe	496	555	(11%)	268	85%	1,937	1,471	32%
Karpinskogo-1 pipe	433	428	1%	427	1%	1,565	1,790	(13%)
Karpinskogo-2 pipe	—	—	—	191	—	110	191	(43%)
<b>Almazy Anabara</b>	<b>—</b>	<b>9,400</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>12,200</b>	<b>13,668</b>	<b>(11%)</b>
<b>Total</b>	<b>7,241</b>	<b>17,173</b>	<b>(58%)</b>	<b>7,451</b>	<b>(3%)</b>	<b>41,254</b>	<b>40,488</b>	<b>2%</b>

## Appendix 3. Grade

cpt	Q4 2019	Q3 2019	q-o-q	Q4 2018	y-o-y	12M 2019	12M 2018	y-o-y
<b>Aikhal Division</b>	<b>1.32</b>	<b>0.78</b>	<b>70%</b>	<b>1.65</b>	<b>(20%)</b>	<b>1.11</b>	<b>1.26</b>	<b>(12%)</b>
Jubilee pipe	0.95	0.74	29%	1.30	(27%)	0.94	1.14	(17%)
Aikhal underground mine	5.86	4.35	35%	4.56	28%	5.51	4.86	13%
Komsomolskaya pipe	0.25	0.38	(36%)	0.37	(33%)	0.36	0.37	(1%)
Zarya pipe	0.38	—	—	—	—	0.38	—	—
<b>Mirny Division</b>	<b>0.64</b>	<b>0.39</b>	<b>63%</b>	<b>0.95</b>	<b>(32%)</b>	<b>0.60</b>	<b>0.84</b>	<b>(29%)</b>
International underground mine	5.69	5.50	4%	5.39	6%	5.53	6.20	(11%)
Mir underground mine	—	—	—	—	—	—	2.88	—
Alluvial and technogenic deposits	0.20	0.21	(5%)	0.19	8%	0.18	0.16	11%
<b>Udachny Division</b>	<b>0.61</b>	<b>0.70</b>	<b>(13%)</b>	<b>0.66</b>	<b>(9%)</b>	<b>0.65</b>	<b>0.57</b>	<b>13%</b>
Udachny underground mine	1.09	1.31	(17%)	1.44	(24%)	1.24	1.32	(6%)
Zarnitsa pipe	0.25	0.25	0.1%	0.24	4%	0.25	0.26	(3%)
Zapolyarnaya pipe (V.Munskoye deposit)	0.63	0.64	(2%)	0.57	10%	0.64	0.57	13%
Alluvial deposits	0.17	0.25	(32%)	0.30	(44%)	0.29	0.26	13%
<b>Nyurba Division</b>	<b>4.83</b>	<b>3.75</b>	<b>29%</b>	<b>4.58</b>	<b>6%</b>	<b>4.18</b>	<b>3.66</b>	<b>14%</b>
Nyurbinskaya pipe	3.72	4.00	(7%)	4.04	(8%)	3.98	4.49	(11%)
Botuobinskaya pipe	6.54	5.12	28%	7.02	(7%)	5.46	4.54	20%
Alluvial deposits	1.04	2.50	(59%)	4.28	(76%)	2.36	2.53	(7%)
<b>Severalmaz</b>	<b>1.21</b>	<b>1.21</b>	<b>0%</b>	<b>1.11</b>	<b>8%</b>	<b>1.17</b>	<b>1.05</b>	<b>11%</b>
Arkhangelskaya pipe	1.11	1.08	3%	1.17	(6%)	1.08	1.04	4%
Karpinskogo-1 pipe	1.33	1.37	(3%)	1.47	(10%)	1.34	1.15	16%
Karpinskogo-2 pipe	—	—	—	0.24	—	0.41	0.24	69%
<b>Almazy Anabara</b>	—	<b>0.42</b>	—	—	—	<b>0.42</b>	<b>0.40</b>	<b>7%</b>
<b>Total</b>	<b>1.22</b>	<b>0.71</b>	<b>72%</b>	<b>1.38</b>	<b>(12%)</b>	<b>0.93</b>	<b>0.91</b>	<b>3%</b>

## Appendix 4. Diamond, ore and gravels inventories

Inventories as at the end of the period	Q4 2019	Q3 2019	Q2 2019	Q1 2019	Q4 2018	Q3 2018	Q2 2018	Q1 2018
Diamonds, m cts	22.6	21.7	15.9	14.3	17.0	15.5	11.7	12.3
Ore and gravels, m t	26.5	23.6	31.8	29.6	23.9	21.7	29.8	28.0

## GLOSSARY

**gem-quality diamonds** – diamonds used in jewellery

**V.Munskoye deposit** – the Udachny Division's Verkhne-Munskoye deposit

**ct, cts** – carat, unit of mass (weight) equal to 200 mg; one of the 4Cs of diamond quality along with colour, cut and clarity

**stripping ratio** is calculated as rock moved in cubic metres (less pre-stripping) divided by ore and gravels processed (in tonnes)

**p.p.** – percentage point

**diamond price index** helps track changes in average diamond prices on a like-for-like basis (excluding +10.8 cts stones)

**average realised price** is sales revenue in US dollars divided by sales volumes in carats

**t** – tonne