

JSC NC KazMunayGas announces 2019 Trading Update

Nur-Sultan, 19 February 2020 - Joint-stock (JSC) National Company (NC) KazMunayGas (“KMG” or “Company”), Kazakhstan's national vertically integrated oil and gas company, announces its operating results for 2019.

Highlights for 2019:

- Oil and gas condensate production was stable year-on-year and amounted to 23,618 thous. tonnes or 26% of total production in Kazakhstan;
- KMG announces its reserves, calculated in accordance with PRMS international standards, for the first time ever. KMG's proved plus probable hydrocarbon reserves amounted to 676 mln tonnes of oil equivalent (5,220 mmbbl) as of 31 December 2019;
- Oil and gas transportation segment was relatively stable at 78,066 thous. tonnes of oil and 103,494 mln m³ of gas transported;
- Domestic demand for light petroleum products was fully covered and further volumes were exported to European and Central Asian markets;
- To promote greater transparency, in 2019, the Company for the first time published a Carbon Disclosure Project on greenhouse gas emissions, which discloses KMG's performance and plans for the climate change adaptation.

	2019	2018	%
Oil production, thous. tonnes	23,618	23,606	0.05%
Gas production, mln m ³	8,455	8,137	3.9%
Oil transportation, thous. tonnes	78,066	75,038	4.0%
Gas transportation, mln m ³	103,494	111,567	-7.2%
Oil refining, thous. tonnes	20,588	19,715	4.4%

CEO Alik Aidarbayev comments on the 2019 operating results of KMG:

“I am proud to report that 2019 was another remarkable year for KMG, strengthening our position as Kazakhstan’s national oil and gas champion. In 2019, we continued to operate in a safe and responsible manner in the upstream, midstream and downstream segments.

We continue to recognize that the trust of our key stakeholders is essential to KMG remaining a reliable and responsible company and we are making good progress delivering on our strategy of maximizing stakeholder returns. KMG continues to ensure safe operational excellence while bringing benefit to the communities in which we operate.”

Operating results for 2019

Hydrocarbon production

In 2019, oil and gas condensate production was almost unchanged year-on-year and amounted to 23,618 thous. tonnes (485 kbopd). Natural and associated gas production increased by 3.9% to 8,455 mln m³.

KMG's share in oil and gas production of mega fields (Tengiz, Kashagan, Karachaganak) amounted to 8,142 thous. tonnes (178 kbopd) and 5,819 mln m³, respectively.

KMG's share in oil production of the Tengiz field increased by 4.1% year-on-year and amounted to 5,958 thous. tonnes (130 kbopd) and in gas production increased by 4.2% to 3,258 mln m³. The main driver of oil and gas production growth was the stable operation and higher reliability of the SGI/KTL/SGP (Sour Gas Injection/ Complex Technology Lines/ Second Generation Plant) plants despite suspending production for a scheduled overhaul at Tengiz's KTL-1 that was conducted from 1 August 2019 to 9 September 2019 (40 days).

KMG's share in oil production of the Kashagan field increased by 6.9% to 1,169 thous. tonnes (25 kbopd) and gas production increased by 10.4% to 700 mln m³. The growth is primarily due to the scheduled overhaul of onshore and offshore complexes from 14 April to 19 May 2019 and an increase of the utilization ratio to 98.4%. Peak gross production at Kashagan reached around 400 kbopd in 2019 and the average daily production for the 4th quarter of 2019 amounted to 344 kbopd. For the first time, a major overhaul was successfully completed at the Kashagan field with a complete shutdown of all production facilities.

KMG's share in liquid hydrocarbon production of the Karachaganak field decreased by 7.3% year-on-year to 1,015 thous. tonnes (22 kbopd). Gas production decreased by 1.6% to 1,861 mln m³. The decline is mainly attributable to a complete shutdown of the production facilities Karachaganak Processing Complex and two gas-processing units for conducting a scheduled overhaul from 16 September 2019 to 10 October 2019 (25 days).

KMG's share in oil and gas production of operating assets was slightly down and amounted to 15,476 thous. tonnes (307 kbopd) and 2,636 mln m³, respectively. The production decrease of operating assets is primarily driven by the natural decline of oil production at Kazgermunai and PetroKazakhstan Inc. by 17.7% year-on-year and 15.5% year-on-year, respectively, which is in line with the production plan decline.

New contracts/agreements

In 2019, KMG worked to attract strategic partners in new subsoil use projects and expand cooperation with international oil and gas companies in the field of exploration.

- KMG signed contracts and obtained subsoil use rights for joint exploration and production with LUKOIL in the Zhenis area and with ENI in the Abai area, which are located in the Kazakhstan sector of the Caspian Sea. In addition, as part of the heads of agreement signed by KMG and LUKOIL on the project I-P-2, work is in progress to obtain subsoil use rights;
- In 2019, KMG also signed several agreements to expand cooperation in the oil and gas industry: agreements on joint site explorations with LUKOIL and Norwegian company Equinor; memoranda with BP, Tatneft and the Azerbaijani company SOCAR.

Hydrocarbon reserves

For the first time ever, KMG releases a summary of its reserves report prepared in compliance with international PRMS standards. According to the international independent consulting firm DeGolyer & MacNaughton, KMG's proved plus probable hydrocarbon reserves (2P) amounted to 676 mln tonnes of oil equivalent (5,220 mmboe) as of 31 December 2019, of which oil and condensate account for 76% of total 2P reserves. 2P reserves life (based on oil and condensate at 2019 production levels) is at 23 years.

The following table is a summary of net reserves¹ under PRMS as of 31 December 2019.

Reserves	Oil & Condensate, mln barrels	NGL ² , mln barrels	Sales Gas, bcf	Hydrocarbon reserves, mmboe
Proved (1P)	2,825	168	5,204	3,860
Proved plus Probable (2P)	3,993	189	6,228	5,220
Proved plus Probable plus Possible (3P)	4,686	224	7,070	6,089

Reserves	Oil & Condensate, mt	NGL, mt	Sales Gas, bcm	Hydrocarbon reserves, mmtoe
Proved (1P)	371	14	147	499
Proved plus Probable (2P)	524	16	176	676
Proved plus Probable plus Possible (3P)	616	19	200	790

MMboe= million barrels of oil equivalent; MMtoe= million tonnes of oil equivalent; mt = million tonnes; bcf = billion cubic feet; bcm = billion cubic meters; 6,000 cf = 1 boe; 1 cm = 35.31466 cf; 1 ton ~ 7.62 barrels.

Oil and gas transportation

In 2019, KMG's share³ in oil transportation increased by 4.0% to 78,066 thous. tonnes as a result of growth in offshore transportation, which is carried out by NMSK Kazmotransflot LLP (KMTF). Offshore oil transportation increased 1.5 times, mainly due to the agreement signed at the end of 2018 on supply and transportation between KMTF, KMG and KMG International.

KMG's share in oil transportation by Caspian Pipeline Consortium (CPC) increased by 3.6% to 13,126 thous. tonnes. In May 2019, the shareholders of CPC decided to implement a project to eliminate the bottlenecks of the CPC pipeline to increase its capacity in the Kazakhstan sector by 35% to 72.5 mln tonnes per year with a project implementation period from 2019 to 2023.

In 2019, gas transportation volumes decreased by 7.2% year-on-year to 103,494 mln m³ mainly due to the decline in transit gas volumes resulting from redistribution of Russian gas flows supplied by PJSC Gazprom and reduction in the volume of transit of Central Asian gas to China.

¹ Net Reserves are defined as that portion of the gross reserves attributable to (1) the interest held by KMG after deducting all interest held by others, as well as (2) interests that are not held by KMG, but which KMG controls.

² Natural Gas Liquids.

³ Oil transportation volume takes into account the transportation volume of each individual pipeline company, including the operating share of KMG. Part of the volume of oil can be transported by two or three pipeline companies, and correspondingly these volumes are counted more than once in the consolidated volume of oil transportation.

Sales volumes of gas for sale in 2019 amounted to 22.8 bln m³. Of these volumes 8.8 bln m³ were sent for export, 81% of which was exported to the territory of China under a signed contract in October 2018 to export gas to China for the amount of up to 10 bln m³ per year.

Crude oil sales

In 2019, sales of oil and gas condensate produced by KMG were relatively stable year-on-year and amounted to 23,509 thous. tonnes, 70% of which were exported.

Own produced crude oil sales to the domestic market totaled 7,130 thous. tonnes (including 6,672 thous. tonnes of crude oil supplied to three refineries for further sale of oil products).

Refining

In 2019, refining volumes in Kazakh and Romanian refineries increased by 4.4% year-on-year to 20,588 thous. tonnes:

- Refining volumes of Kazakh refineries (including KMG's share) increased by 3.3% year-on-year to 13,822 thous. tonnes mainly due to an increase in refining volumes at the Shymkent refinery on the back of an increase in refining capacity after the completion of the modernisation programme;
- Refining at KMG International refineries (Petromidia, Vega) in Romania increased by 6.9% year-on-year to 6,767 thous. tonnes as a result of improving the mixture of crude oil for processing and maintaining the average daily processing rate at the Petromidia refinery at a record level.

In 2019, production of oil products at Kazakh and Romanian refineries increased by 4.3% year-on-year to 19,126 thous. tonnes:

- Production of oil products at Kazakh refineries (net to KMG) increased by 3.0% year-on-year to 12,513 thous. tonnes mainly due to an increase in refining volumes at the Shymkent refinery on the back of an increase in refining capacity after the completion of the modernisation programme. In 2019, the light oil products yield at all three refineries was at 64% compared to 61% in 2018. In 2019, domestic demand for light petroleum products was fully covered and 37 thous. tonnes of own produced gasoline were exported to European and Central Asian markets;
- Oil products production at KMG International refineries (Petromidia, Vega) in Romania increased by 6,9% year-on-year to 6,614 thous. tonnes as a result of improving the mixture of crude oil for processing and an increase of demand in the market.

Ecology and industrial safety

KMG has been focusing on measures for preventing the negative impact of its operations on the environment and personnel health.

- In 2019, KMG has achieved significant progress in reducing APG flaring rates from 6.0 to 2.95 tons per 1,000 tons of hydrocarbon production due to the commissioning of a comprehensive gas processing units at the Prorva group of fields in JSC "Embamunaygas", a 100% owned subsidiary of KMG, and Kozhasay group of fields in JSC "KazakhOil Aktobe", a 50% owned subsidiary of KMG. The reduction of APG flaring is a priority area in KMG's development strategy;

- In 2019, KMG issued its first verified report on greenhouse gas emissions for 2018 under the CDP (Carbon Disclosure Project) climate change programme, disclosing data on direct and indirect GHG emissions across all KMG assets, including its subsidiaries in Romania and Georgia. The report is available at: <http://ir.kmg.kz/>.

	UoM	2019	2018	%	IOGP⁴
NO _x emissions	tons per 1,000 tons of raw hydrocarbon production	0.21	0.20	5%	0.37
SO _x emissions	tons per 1,000 tons of raw hydrocarbon production	0.18	0.25	-28%	0.20
Associated petroleum gas flaring intensity	tons per 1,000 tons of raw hydrocarbon production	2.95	6.00	-51%	10.5 ⁵
Lost time incident rate	1 mln people-hours	0.31	0.32	-3%	0.25 ⁵
Fatality accident rate	100 mln people-hours	1.28	0.65	97%	0.31 ⁵

Social responsibility

- In accordance with a Presidential decree, in 2019 KMG fully settled its commitments for the construction of new social facilities (a 7,000-seat stadium and congress hall) in Turkestan for a total amount of 21 bln tenge. Along with this, in August 2019, KMG financed the construction of a 1,000-seat amphitheater worth 1.8 bln tenge in Turkestan;
- In August 2019, the Company organized a sports competition in Shymkent to support its' corporate culture. Event has involved over 3,000 amateur athletes from 48 subsidiaries of KMG, and as a result, 350 employees from 26 subsidiaries reached the final.

⁴ Available IOGP (International Association of Oil and Gas Producers) 2017 average results (<https://www.iogp.org/>).

⁵ Available IOGP (International Association of Oil and Gas Producers) 2018 average results (<https://www.iogp.org/>).

For further information, please visit <http://ir.kmg.kz/ru> or contact:

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About JSC National Company KazMunayGas: JSC National Company KazMunayGas (KMG) is Kazakhstan's leading vertically integrated oil and gas company, operating assets across the entire production cycle from the exploration and production of hydrocarbons to transportation, refining and specialised services. Established in 2002, the company represents the government's interests in the national oil and gas industry.

KMG's significant assets are as follows:

UPSTREAM

Mega projects:

- Tengizchevroil (TCO) - 20%
- Karachaganak (KPO) - 10%
- Kashagan - 8.44%⁶

Operating fields:

- Ozenmunaigas (OMG) - 100%
- Mangistaumunaigaz (MMG) - 50%
- Embamunaigaz (EMG) - 100%
- Kazgermunai (KGM) - 50%
- Petrokazakhstan Inc (PKI) - 33.0%
- Karazhanbasmunai (KBM) - 50%
- KazakhOil Aktobe (KOA) - 50%
- KazakhTurkmunai (KTM) - 100%
- KazMunayTeniz - 100%

MIDSTREAM

- KazTransOil - 90%
 - Kazakhstan China Pipeline (KCP) - 50%
 - Munai Tas - 51%
 - Batumi Oil Terminal - 100%
- CPC - 20.75%⁷
- Kazmortransflot - 100%
- KazTransGas - 100%
 - ICA - 100%
 - AGP - 50%
 - KTG Aimak - 100%
 - BSGP - 50%
- KazRosGas - 50%

DOWNSTREAM

- Pavlodar refinery - 100%
- Atyrau refinery - 99.53%
- Shymkent refinery - 49.72%
- KMG International - 100%
 - Petromidia refinery - 54.63%
 - Vega refinery - 54.63%

⁶ In October 2015, KMG sold 50% of its shares in Kashagan to Samruk-Kazyna with a call option to buy back all part of shares at any time between 2020 and 2022. KMG and Samruk-Kazyna own 16.88% in total.

⁷ 19% through the KMG itself and 1.75% through Kazakhstan Pipeline Ventures (KPV).