

DIGITAL EMBAMUNAIGAS

2018
Annual
Report



ЕмбіМұнайГаз
АКЦИОНЕРЛІК ҚОҒАМЫ



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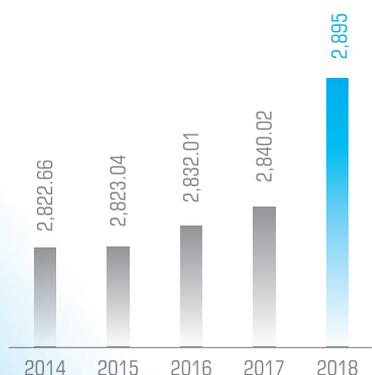


This year we have chosen *Digital Embamunaigas* as the topic for the Report. The pilot project Smart Field implemented in 2016 at the Uaz Field proved successful. In 2017, the project was replicated at the fields of the Prorva Group of Fields, and at the Zhanatalap Field and East Makat Field in 2018. The Company will have digitized ten fields in total until 2024. This project of Embamunaigas JSC was included in the state program *Digital Kazakhstan*.

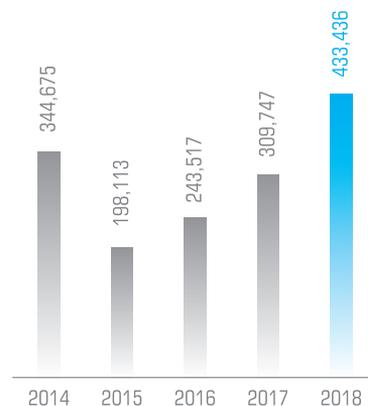


KEY INDICATORS

Oil Production, thous. tonnes



Earnings, mln KZT



Profit



EBITDA



44,201
MLN KZT

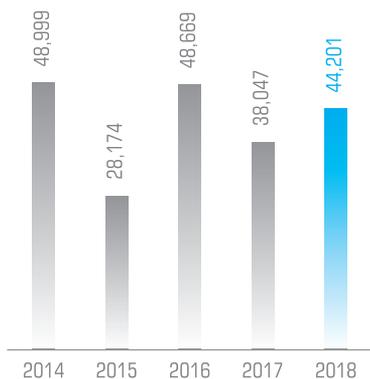
CAPITAL EXPENDITURES 2018

2,895
THOUS. TONNES
OIL PRODUCTION 2018

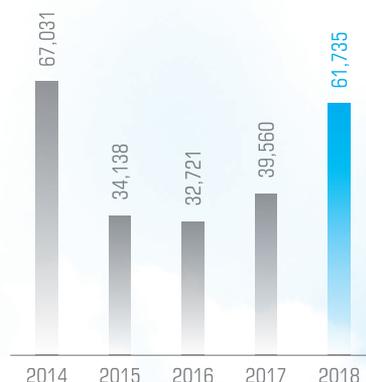
19%
PROFIT MARGIN

61,735
MLN KZT
FREE CASH FLOW 2018

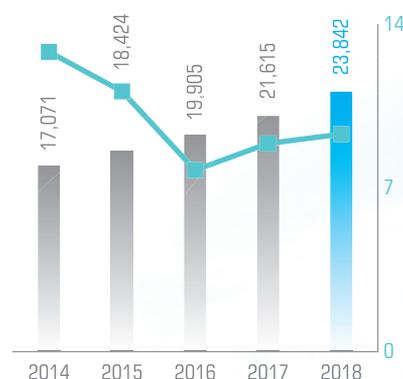
Capital Expenditures, mln KZT



Free Cash Flow, mln KZT



Lifting



- Lifting (operating) costs per unit, KZT/tonne
- ◆ Lifting (operating) costs per unit, USD/bbl (right scale)

83,389

MLN KZT

PROFIT 2018

433,436

MLN KZT

EARNINGS 2018

117,219

MLN KZT

EBITDA 2018

27%

EBITDA 2018

23,842

KZT/TONNE

LIFTING 2018

SMART FIELD



Production

SMART CONTROL STATION

Smart Control Stations VLT SALT Danfoss installed give an opportunity of remote well control.



Oil Collection and Treatment

OIL TREATMENT MONITORING

The Oil Collection and Treatment Monitoring Module allows online monitoring and control of the production process associated with the oil treatment.



Well Repairs

WELL SERVICING TEAM MONITORING

The Well Servicing Team Monitoring Module in the Smart Field System allows online monitoring of the progress of repairs performed by the teams.



Production Monitoring

WELL PRODUCTION MONITORING

The Production Monitoring Module allows online control, monitoring and obtaining of necessary information.



GEOGRAPHIC INFORMATION SYSTEM

Corporate Geographic Information System (CGIS) allows storing the data from all sites, i.e. information is constantly updated for all production sites, buildings and facilities, including roads, mining and land allotments, etc.



TRANSPORT MONITORING

Satellite Monitoring System Wialon allows online transport monitoring, including comprehensive analytics and reports for end users.



SITE MONITORING

Video surveillance system is used to control the perimeter of the production facilities and also registers (recognizes) vehicles entering the site.

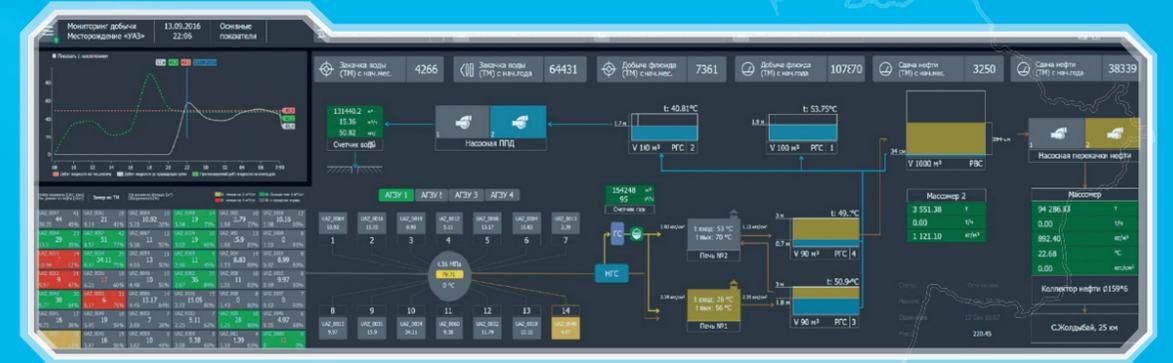
Oil Transportation and Delivery

OIL PUMPING MONITORING

The Production Fluid Pumping Monitoring Unit allows online monitoring of delivery of crude oils from the metering stations.

SYSTEM INTERFACE:

Process Flow Monitoring Module



Well Servicing Monitoring Module



Well Round Check Module



KEY EVENTS



Head of State Nursultan Nazarbayev visited Embamunaigas JSC. During the visit, the President became familiar with the activities of the Center for Visualization of Production Processes, where they presented the smart field system, which allows online processing of large streams of information from field facilities, subsequent analysis of such information

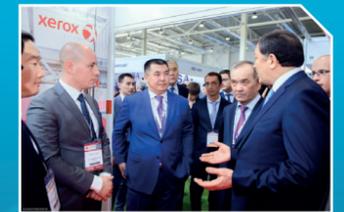
in order to respond quickly and improve the production process at the fields.



As part of his working visit to Atyrau Region, Prime Minister of Kazakhstan Bakytzhan Sagintayev visited Embamunaigas JSC. During his visit, Bakytzhan Sagintayev had a look at the work of the Center for Visualization of Production Processes and Plans for the Smart Field project.

Embamunaigas JSC participated in the 17th International North Caspian oil and gas and construction exhibitions 2018 Global Oil & Gas Atyrau and 2018 Atyrau Build.

The company was the Golden Partner of the exhibition.



The Board of Directors of Embamunaigas JSC approved the Company's Development Concept until 2027. The Concept defines a set of rules and principles that will guide the Company in making business development decisions, developing program documents, forecasting financial and economic models (business plans), risk management systems, the Company's annual budget, investment projects, etc.

Embamunaigas JSC opened access to an interactive museum. The tours to the interactive museum started at the Company's Head Office for schoolchildren and university and college students of Atyrau.



An international Forum was held at the Head Office of Embamunaigas JSC dedicated to current issues of introducing digital technologies in the oil and gas industry.

The event was organized at the initiative of Embamunaigas JSC with the support of the Ministry of Information and Communications of the Republic of Kazakhstan and the Ministry of Energy of the Republic of Kazakhstan.

The Forum was attended by over 200 delegates – representatives of relevant ministries, managers and employees of large oil and gas companies, international experts and representatives of IT service providers.



The Munaishy Kyz women's club was established in the Company. The main goal of establishing the women's club and holding a conference is to create a single platform for the Company's women to communicate and express themselves.



Embamunaigas JSC team provided charitable assistance to the locals of East Kazakhstan Region affected by the spring floods. The Chairman of the Management Board of Embamunaigas JSC Anuar Zhakysbekov on behalf of the large team of the company handed over keys to the new housing to seven families of the villages of Maleyevsk, Zubovsk and the outskirts of Zyryanovsk, whose houses were flooded and could not be renovated.



Embamunaigas JSC was one of the sponsors of the II Kazakhstan Geology Forum: Oil & Gas 2018 held in Astana. The purpose of the Forum is to promote actively the development of geology, introduce innovative technologies and attract investment.



2018



A ceremony of official opening of a new dormitory commissioned for 100 people was held at the Kenbay OGPO of Kainarmunaigas on the occasion of the Day of Oil and Gas Workers of the Republic of Kazakhstan.



The Emba team celebrated the 50th anniversary of the S. Balgimbayev Field. During the series of festive events, an office building of the Zhaiymunaigas OGPO was commissioned after the renovation, and the ceremony of opening of a 150-seat cafeteria was held. The Company arranged an aytys featuring popular akyns of republican and regional scale in the Zhalyn House of Culture in Issatay District. There was a gala concert for the residents and visitors of the district at the Central Stadium of the Akkistau Village in the evening featuring a performance team of the N. Zhanturin Regional Philharmonic Hall and one of the talented and famous couples of the Kazakh variety performers Kydyrali Bolmanov and Karakat Abildina.

A ceremony of official opening of a new 50-seat cafeteria was held at the **Kissybay OGPO of Zhylyomunaigas** – a production structural unit of Embamunaigas JSC on the occasion of the Day of Oil and Gas Workers of the Republic of Kazakhstan and the 25th anniversary of the field.



Deputy Prime Minister of the Republic of Kazakhstan Askar Zhumagaliyev visited the Head Office of Embamunaigas JSC as part of his working visit to the regions explaining the Message of the President of the Republic of Kazakhstan N. Nazarbayev to the people of Kazakhstan.



During the visit, the Deputy Prime Minister was accompanied by Nurlan Nogayev (Akim of Atyrau Region), Magzum Mirzagaliyev (Deputy Minister of Energy of the Republic of Kazakhstan), Serik Shapkenov (First Deputy Akim of Atyrau Region), and other officials. As part of the visit to the Center for Visualization of Production Processes, the Deputy Prime Minister was familiarized with the Company's concept of the Smart Field, learned about the successful experience of the project introduction to the Uaz Field and the ongoing large-scale work on replicating it to other fields of Embamunaigas JSC.



Embamunaigas JSC acted as the Silver Sponsor of the 2018 KIOGE Exhibition and funded the construction of a seminar room, where 12 thematic seminars of the largest oil and gas and service companies were held from September 26 to 28.

Dedicated to the Labor Day, a republican forum Towards a Society of Universal Labor was held in Astana, where the winners of the contest Yenbek Zholy were named. Aibek Tursynbek, an oil production operator from Dossormunaigas Oil and Gas Production Office of Embamunaigas JSC, won in the category The Best Young Worker.



MESSAGE OF THE CHAIRMAN OF THE BOARD OF DIRECTORS



Kurmangazy Iskazyev
Chairman of the Board of Directors
of Embamunaigas JSC

Dear Report Readers,

2018 was a productive year for Embamunaigas JSC. The approval of the Company's Development Concept for the next ten years was one of the main events of the past year. The Concept defines the Company's strategic priorities, ambitions, areas of investment and dividend policies, as well as a vision and future plans for further development, in accordance with which the business plans and a portfolio of projects will be formed. The implementation of the Concept will allow Embamunaigas JSC to ensure long-term profit to the shareholder, make a significant contribution to the economic development of the region and make many thousands of employees confident in their future. As defined in the Concept, the mission of the Company is to ensure stability for employees and efficiency for the shareholder by balancing social and business interests well.

Simple and comprehensive truths were adopted as the corporate values, such as prioritizing the safety of life and health of employees, achieving results, caring for their motherland and the Company, reliance on expertise, and the need for mutual respect and trust between colleagues.

As for the chosen values, the top management and employees of Emba achieved excellent performance in 2018 in respect of occupational safety, production and financial activities, successfully completed the production program and generated additional profit for the shareholder. The positive dynamics of net profit and cash flows, taxes and contributions to the budget were maintained.

The 2018 Production Plan was determined by the shareholder in the amount of 2,895 thous. tonnes of oil, which also exceeded the common level of annual production in previous years by 55 thous. tonnes. The Emba cohesive team coped with this task successfully.



In the system of the national Company, it is here that geological exploration is actively implemented and drilling in subsalt structures is planned; digital technologies were first implemented in pilot mode, and today they are replicated in oil production, automation of equipment maintenance and repair, logistics and transportation. The implementation of these projects has increased the performance and allowed efficient management of all business processes in the Company.

The project management system was introduced and a committee was established to review the implementation status of the Company's project portfolio last year as part of the Development Concept. This ensures regular project monitoring and evaluation, and the ability to make operational decisions to improve their implementation. Special attention is paid to the project risk management, which underlines the Company's commitment to risk-based orientation.

I am sure that through joint efforts of the Board of Directors, top management and cohesive team, Embamunaigas JSC will continue the successful implementation of all the plans outlined as part of the chosen Mission this year!

Kurmangazy Iskaziyeu,
Chairman of the Board of Directors of Embamunaigas JSC



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Embamunaigas JSC is a modern Kazakh oil company with promising future that deals with geological exploration, development of oil fields, production and treatment of oil and gas. Embamunaigas JSC has six structural units in Atyrau and four districts of Atyrau Region.
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MESSAGE OF THE CHAIRMAN OF THE MANAGEMENT BOARD



Anuar Zhaksybekov,
Chairman of the Management
Board of Embamunaigas JSC

Dear Colleagues and Partners,

I am pleased to present you the Annual Report of Embamunaigas JSC, which discloses the key results of the Company's activities. 2018 was full of events and achievements, the main of which was a zero fatal accident rate. Such results were achieved through the systematic and coordinated work of all employees of the Company. Unfortunately, there were some injuries. All four cases have already been analyzed and the relevant conclusions have been made in order to prevent their recurrence. This year we set a goal, which is to move forward, work ahead of the curve and introduce new approaches adopted in international companies that are leaders in occupational safety and environmental protection.

The Company systematically works on minimizing the environmental impact and annually allocates big funds to clean historically polluted areas and process sludge. As part of the rational use of fresh water, for several years now, the Company has been working on the exploration and further use of groundwater for the production needs of Embamunaigas JSC facilities in the South Emba basin and the Kaynar massif with the estimation of groundwater reserves of the Jura Cenomanian deposits. The implementation of the program will reduce the dependence on the consumption of Volga water for industrial and domestic needs.

As part of the implementation of the Law of the Republic of Kazakhstan On Subsoil and Subsoil Use, the Company continues working on the utilization of associated petroleum gas. In 2018, more than 152 million m³ of marketable gas were produced and over 100 million m³ were sold. An elemental sulfur production plant using the LO-CAT technology was launched at the complex gas treatment unit at the S. Nurzhanov Zhylyoimunaigaz OGPO. The gas treatment units at the East Makat and S. Balgimbayev fields operate successfully and supply population of Makat, Kyzylkok and Issatay Districts with natural gas. The construction of gas pipelines from the Akkistau Village to the automated gas distribution station of Tushchykudyk and from the S. Balgimbayev gas treatment unit to the Tumannoye Village was completed, which allowed selling marketable gas to the population at any time of the year, regardless of seasonal fluctuations.

The commitment to achieve the set plans is once again confirmed by the large-scale work carried out by the Company for the further digitalization of production processes. The Smart Field project implemented in pilot mode in 2016 at the Uaz Field proved successful. In 2017, the project was replicated at the fields of the Prorva Group of Fields; in 2018, at the Zhanatalap and East Makat fields. In total, ten fields will have been digitized in the Company by 2024.

This project of Embamunaigas JSC was included in the Digital Kazakhstan state program and was positively received by the Head of State Nursultan Nazarbayev during his visit to the Center for Visualization of Production Processes of the

Company in the Emba Head Office in August 2018. Last April, the Forum on the digitization of the oil production process arranged by the Company brought together about 200 international and domestic experts, representatives of oil and service companies. In 2018, the Prime Minister of the Republic of Kazakhstan B. Sagintayev, Vice Prime Minister A. Zhumagaliyev, deputies of the Parliament of the Republic of Kazakhstan, CEO of Samruk-Kazyna National Welfare Fund JSC A. Yessimov and others learned about the activities of the Center for Visualization and Digitalization of the Company's production.

The Company continues working hard to replenish stocks. In 2018, five exploration wells were completed with drilling, six were in drilling, two new fields in the Triassic complex – Uaz North and S. Nurzhanov (the north-western wing) were put on balance. The reserves at the Novobogatinsk West deposit were increased. A contract of state geological study was signed for the Emba-5 site in Aktyubinsk Region and 2D CDPM operations were performed, with a total volume of 1,000 running km. Internal corporate permits were obtained to conduct a large amount of seismic exploration at the Taisoigan site at the Kainarmunaigaz OGPO, where the total volume of planned 3D CDPM seismic exploration was 5,600 km², which was a record figure for both KMG NC Group of Companies and our country as a whole.

In order to study the possibility of complete recovery of oil reserves at the final stage of development, the Company continues using polymer flooding technology at the Zaburunye Field. A positive trend in the stabilization of the level of oil production vs. previous years was achieved.

In 2018, as part of cost optimization, the projects for material and technical support, equipment maintenance and repair were introduced in a pilot mode and are currently being replicated; a system of separate accounting of vehicles is implemented.

In 2018, as part of the performance of contracts, the goods and materials were received in the amount of 11.796 billion KZT. Goods and materials in the amount of 1.9 billion KZT from the previously received goods were used. The turnover rate of goods and materials was 152 days vs. 180 days expected.

As a socially responsible subsoil user, the Company contributes to the development of local content. In 2018, with the volume of purchases for 89.9 billion KZT, local content in goods was 42%, 94% in work and 94% in services.

For the period from October 1, 2012 to December 31, 2018, Embamunaigas JSC sent over 897.1 billion KZT to pay taxes and deductions to the budget, including 199.2 billion KZT in 2018. During this period, more than 4.3 billion KZT was allocated for the development of the regional infrastructure, including 1.9 billion KZT in 2018.

In order to improve the expertise of its employees, the Company annually allocates significant funds for the education, training and advanced training of employees. In 2018, more than 4,500 employees of the Company were trained in compulsory safety courses and more than 1,200 passed advanced training. For employees, whose full-time positions were optimized due to non-core activities, the Company arranged retraining in new jobs.

The implementation of the Dual Training Program continues successfully. In total, for the period of the project from 2015 to 2018, 93 students completed dual training in blue-collar jobs, of whom 37 students with the highest score in the final testing were employed by the Company. Today, 23 students continue their training at work, and 19 more students started their studies in 2019.

The Company keeps implementing the Program for the Modernization of the Material and Technical Facilities of the social infrastructure of Embamunaigas JSC and is working to improve the social conditions of the oil workers. In 2018, a dormitory for 100 people was commissioned at the Kenbay Field as well as the cafeterias at the Kissymbay Field (50 seats) and S. Balgimbayev Field (150 seats).

This year, the oil workers of the Emba volunteered to help the residents of villages of Zyryanovsk District of East Kazakhstan Region, whose houses were flooded, at their own expense. The funds raised by the employees of the Company were used to buy three houses and four apartments for affected families. The Emba employees always take special care about children. For the second year in a row, the Company organized charity fairs, which resulted in the purchase of gifts for children from socially vulnerable groups of the population. This year, young specialists made visits and presented gifts to 50 small residents who study at home.

I would like to thank the large and friendly team of the Company for their effective work to achieve all the tasks assigned to us by the shareholder – KazMunayGas National Company JSC. In the coming year, we will continue working according to the chosen values, which is making it through while adhering to the highest standards in the area of occupational safety!

Anuar Zhaksybekov,
Chairman of the Management Board of Embamunaigas JSC

DIGITAL EMBARUNO GAS

SMART CONTROL STATION

Smart Control Stations VLT SALT Danfoss installed give an opportunity of remote control and obtaining the following signals:

- ▶ Pumpjack smooth start
- ▶ Electric motor automatic turning on/off
- ▶ Smooth and continuous frequency control
- ▶ Parameters measuring (current, voltage, frequency power consumption)
- ▶ Waxing/sanding detection
- ▶ Pumpjack balance control through graphic imaging of motor torque



Production

- ▶ Smart oscillation frequency adjustment by the pump priming factor
- ▶ Automated bringing the well on to stable production



01



COMPANY'S PROFILE

K-1405 B

COMPANY'S PROFILE

Embamunaigas Joint-Stock Company (hereinafter referred to as the Company) was founded in the Republic of Kazakhstan on February 27, 2012 as a result of the implementation of the decision of the Board of Directors of KazMunayGas Exploration Production JSC (hereinafter referred to as KMG EP) to establish new subsidiaries on the basis of production branches of KMG EP. The Company began its production activities on October 1, 2012, after obtaining subsoil use rights from KMG EP under contracts for the production and exploration of hydrocarbons, as well as assets and liabilities of Embamunaigas production branch.

KazMunayGas National Company JSC ("KMG NC") is the trustee of 100% of the shares of KazMunayGas Exploration Production JSC in Embamunaigas JSC. KMG NC represents state interests in the oil and gas industry of Kazakhstan and is fully owned by Samruk-Kazyna National Welfare Fund JSC ("Samruk-Kazyna NWF"), which in turn is fully owned by the Government of the Republic of Kazakhstan ("the Government").

The Company supplies the produced oil for export and to the domestic market. Oil is supplied to the domestic market at oil refineries of Kazakhstan. Oil is exported via two main routes, such as the pipelines of the Caspian Pipeline Consortium (CPC) and Uzen – Atyrau – Samara (UAS). The marketable gas is sold via the oil and gas national provider of the Republic of Kazakhstan – KazTransGas JSC.

The official history of the Company started in 1922 – since the establishment of Embaneft Trust for the development of the Dossor and Makat Fields. On October 1, 2012, Embamunaigas was transformed into a joint-stock company after eight years as a production branch.

The Company is engaged in the exploration, development, production and export of raw hydrocarbons. The Company's main operating oil and gas activity is performed at oil and gas assets located in Atyrau Region of the Republic of Kazakhstan.



6 Embamunaigas JSC has six structural units located in Atyrau and in four districts of Atyrau Region: production structural units Zhaiymunaigas, Dossormunaigas, Kainarmunaigas, and Zhylyoimunaigas; and divisions Embamunaigenergo and Equipment Procurement and Maintenance (EP&M).

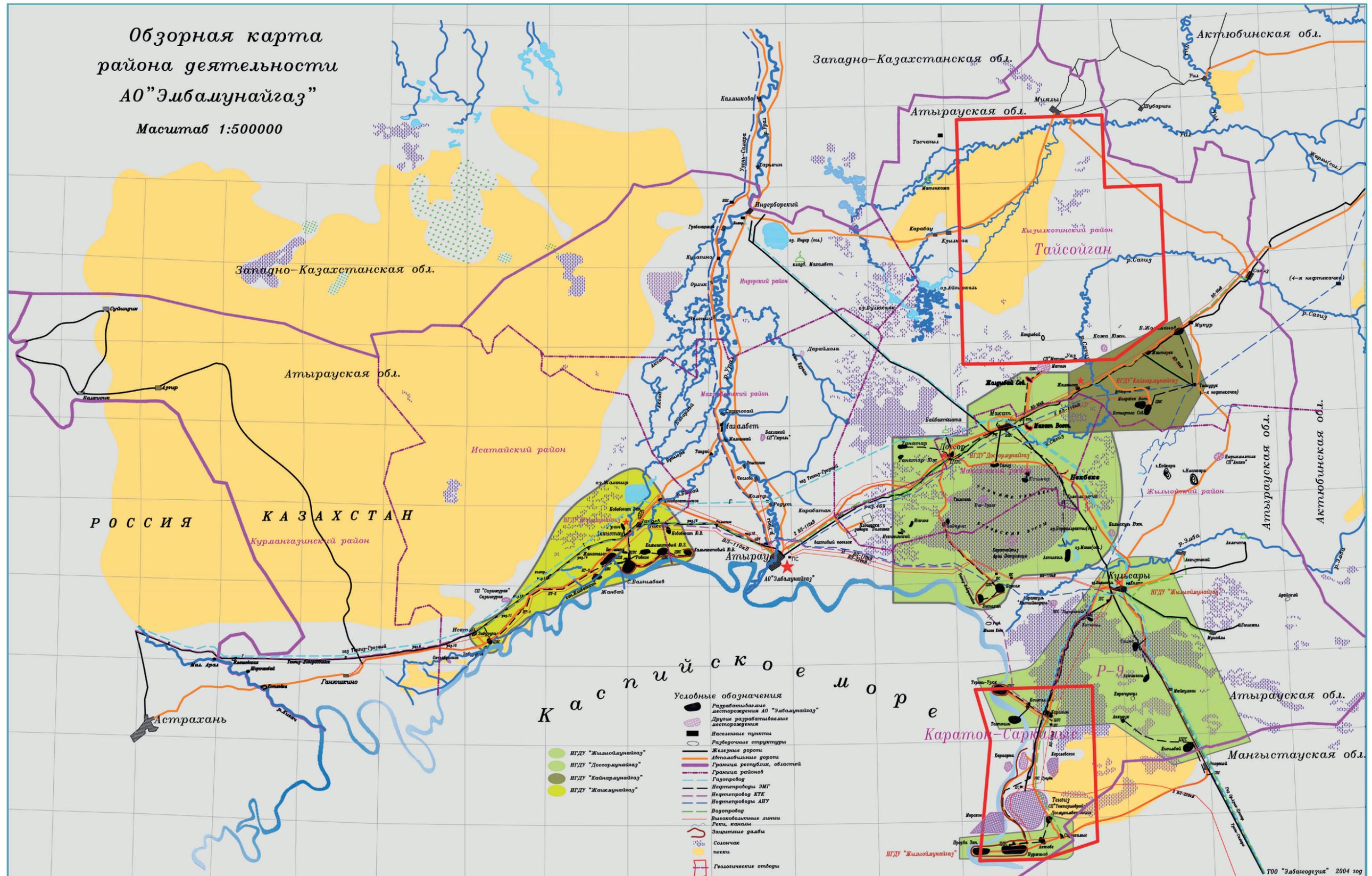
4

45 Embamunaigas JSC has 45 fields with residual oil reserves in categories A+B+C₁ (oil-in-place/recoverable oil) of 619,518/74,304 thous. tonnes. The average depletion of reserves is 70%.

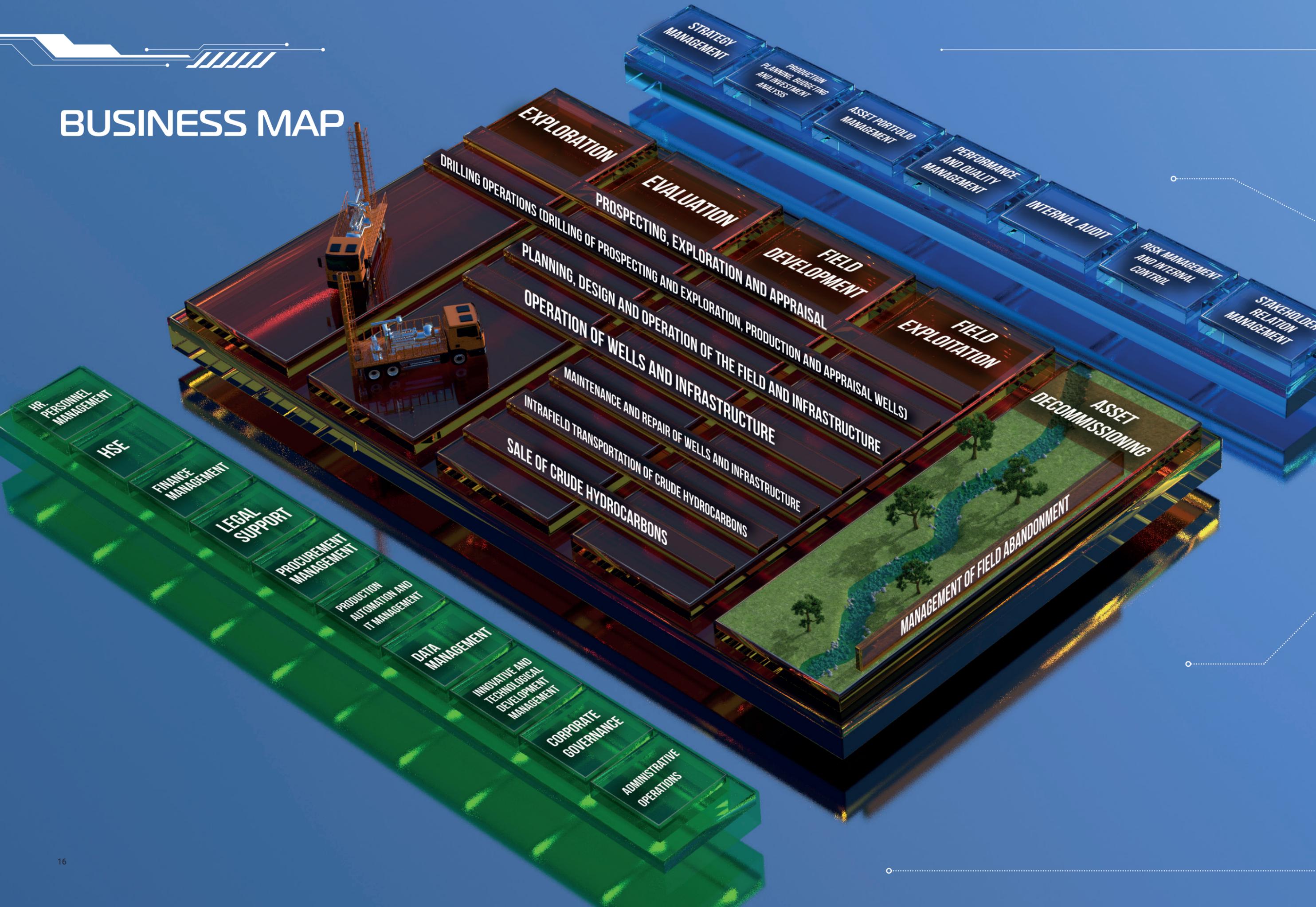
Embamunaigas JSC operates in accordance with international standards ISO 9001, ISO 14001, OHSAS 18001, ISO 50001.



GEOGRAPHIC REACH



BUSINESS MAP



The Company is engaged in the exploration, development, production and export of raw hydrocarbons. The Company's main operating oil and gas activity is performed at oil and gas assets located in Atyrau Region of the Republic of Kazakhstan.

CONTROL SYSTEM ORGANIZATION PROCESSES

- ▶ Strategy Management
- ▶ Production Planning, Budgeting and Investment Analysis
- ▶ Asset Portfolio Management
- ▶ Performance and Quality Management
- ▶ Internal Audit
- ▶ Risk Management and Internal Control
- ▶ Stakeholder Relation Management

CORE PROCESSES

- ▶ Exploration
- ▶ Evaluation
- ▶ Field Development
- ▶ Field Exploitation
- ▶ Asset Decommissioning

SUSTAINING PROCESSES

- ▶ HR. Personnel Management
- ▶ HSE
- ▶ Finance Management
- ▶ Legal Support
- ▶ Procurement Management
- ▶ Production Automation and IT Management
- ▶ Data Management
- ▶ Innovative and Technological Development Management
- ▶ Corporate Governance
- ▶ Administrative Operations

DIGITAL EMBARKING ON GAS

WELL PRODUCTION MONITORING

The Production Monitoring Module introduced to the Smart Field system allows specialists to monitor production processes online and obtain information on such parameters as:



Production Monitoring

- ▶ Deviation of gage oil well fluid production from the designed operating practices
- ▶ Oil treatment operating procedure
- ▶ Well shutdowns and shutdown losses
- ▶ Forecasting fluid/oil production at the end of the day depending on the dynamics of current production changes
- ▶ Balance between gage and field fluid/oil production



02



DEVELOPMENT STRATEGY

OUR VISION

Embamunaigas JSC is a highly efficient oil and gas Company with majority state interest, meeting the highest safety standards, with highly qualified personnel and a profitable resource base ensuring long-term development.

OUR MISSION

We produce oil and gas in order to ensure stability for employees and efficiency for the shareholder by balancing social and business interests well.

OUR VALUES

Human life is our absolute value. Ensuring the safety of life and health of our employees through the introduction of a safety culture for themselves and their colleagues. An employee who comes to work must return home safe and sound.

Making it through. The Company is committed to achieving the stated results and goals. We value result-motivated employees.

Careful attitude to the motherland and the Company. The Company appreciates the environmentally friendly employees and those taking care of the Company's assets.

Expertise. The Company creates conditions to improve the expertise of its employees. We value employees seeking to acquire new knowledge and create equal conditions for career growth.

Ethics and respect for the individual. The Company is committed to creating a culture of relations based on mutual respect and trust.

STRATEGIC PRIORITIES

The main strategic priorities of the Company in decision making are as follows:

Profitability

as an essential condition for the existence of the Company.

Environment

Rational use of subsoil and reduction of adverse environmental impact. With the growth of production, the Company is introducing new technologies that reduce the adverse environmental impact.

Social stability

Ensuring the employment of the Company's employees through the rational distribution of staff for current and new projects.

Automation of production

Improving performance and occupational safety.

Energy efficiency

When choosing technologies for new and existing projects, the Company will give priority to the use of energy efficient technologies.



STRATEGIC LINES OF ACTIVITIES

The priority line of activities of the Company is the formation of a competitive resource base supporting the stable and long-term (more than 25 years) development of Embamunaigas JSC to provide employment and create shareholder value through:

- ▶ conducting exploration operations under existing and new contracts,
- ▶ conducting additional exploration at existing fields, and
- ▶ acquiring new assets.

The Company produces oil and intensifies production at the operating fields through the introduction of new technologies to increase the oil recovery factor (ORF).

In order to ensure the continuous production processes, the Company develops oil service processes aimed at increasing the time between overhauls (TBO) of wells, increasing the operation factor of the special-purpose equipment fleet and providing comfortable living conditions for personnel.

The implementation of the Development Concept of Embamunaigas JSC will allow the Company to make a significant contribution to the economic development of the region and confidence in the future for a team of many thousands (over 5,000 employees).

The utilization of associated gas generated in the process of oil production is a prerequisite for the environmental friendliness. In addition, the portfolio of investment projects of the Company contains projects for the exploration and production of gas fields. Thus, the Company considers the development of the gas business as a promising direction, including measures to upgrade the existing and build new associated gas processing plants to produce marketable gas, methanol, and diesel fuel using GTL technology. In addition, the Company implements measures for the construction of gas piston power plants (GPPP) in order to generate its own electricity. The Company will use the products for its own needs as well as for sale in the domestic market.

In order to maintain the production and social infrastructure at the fields, the Company builds and repairs highways, solves the problems of staff accommodation and meals, and ensures the rational use of economic infrastructure facilities.

In order to ensure the stable development of all business lines, the Company pays great attention to the development of occupational health and safety, HR and production automation.



STRATEGIC INDICATORS

KPI	UoM	2017 (ACTUAL)	2018 (PLAN)	2018 (ACTUAL)	2022 (PLAN)	2027 (PLAN)	2032 (PLAN)
Reserves	mln tonnes	70.4	75.49	74.30	202.64	184.68	146.24
Production output	mln tonnes	2.8	2.9	2.9	3.99	3.15	11.3
Lifting costs	mln tonnes	186.96	210.35	200.25	405.18	483.26	1,749.05
Headcount	ppl	5,275	5,439	4,942	5,341	5,341	5,341
ROACE	%	17.92%	13.60%	26.71%	>WACC	>WACC	>WACC
EBITDA	mln USD	283.8	259.6	337.7	384.1	248.3	1,840.7
EVA	mln USD	62.9	22.3	139.21	>0	>0	>0

KEY RISKS

The Company has identified the following key risks in implementing the Development Concept and risk mitigation measures:

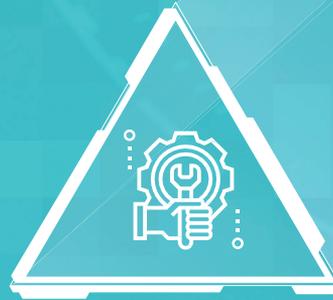
#	Factors	Potential impact	Mitigation measures
1	Decreased production at fields that are in the final stages of development due to the high cost of production	Reduced production volumes	Increased reserves due to exploration operations and M&A transactions
2	The high level of geological risks due to the depth of the promising layers of the P-1 project	Decreased Company's value	A strategic partner recruitment
3	Reduced investment potential for financing projects due to the shareholder withdrawing a significant amount of dividends	No increase in reserves and production rates	The Concept approved by the shareholder (including the investment and dividend policies) as well as business plans for investment projects.
4	Reduced oil prices (below baseline)	Reduced Company's earnings	Search for business cost reduction initiatives
5	Negative change in the economic macroparameters of Kazakhstan (KZT-to-USD exchange rate, inflation rate)	Reduced Company's value, increased costs	Developed and implemented measures to optimize the Company's tax policy
6	The risk of unauthorized strikes	Break of continuous operation	Weighted policy on process outsourcing Prompt implementation of staff retraining programs. Monitoring and analysis of the social climate in the Company

The Company has developed and approved risk management documents and procedures for the purpose of risk management.

DIGITAL EMBARKING

WELL SERVICING TEAM MONITORING

The Well Servicing Team Monitoring Module introduced to the Smart Field system allows specialists to monitor online progress of servicing performed by the teams:



Well Repairs

- ▶ Well servicing team performance monitoring
- ▶ Reduced shutdown time due to operating supervision of the well servicing teams
- ▶ Reduced total time for well servicing
- ▶ Ensuring occupational safety through continuous monitoring of tripping operations



03



MANAGEMENT REPORT

BUSINESS ENVIRONMENT REVIEW

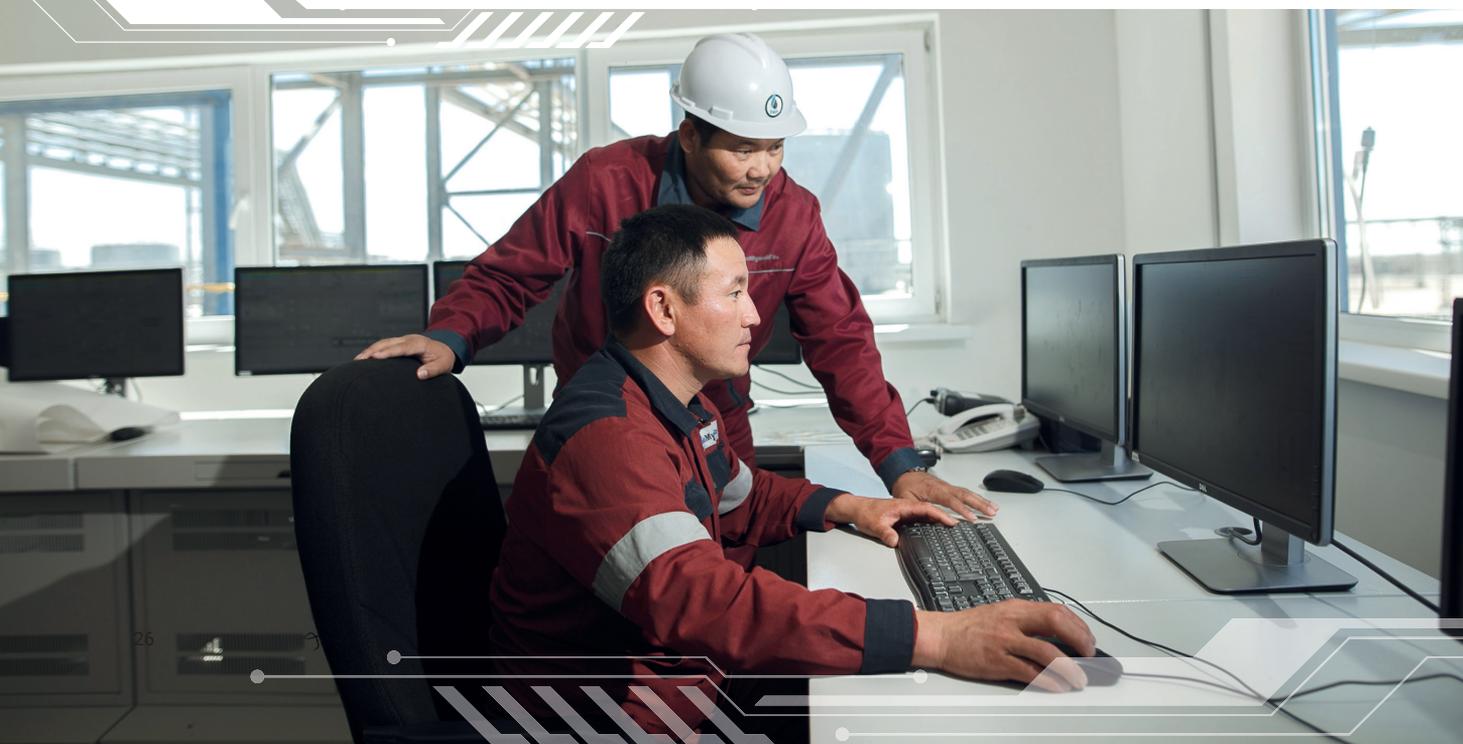
The main macroeconomic factors affecting the financial position of the Company include the dynamics of oil prices, inflation rates, fluctuations in exchange rates, in particular, the KZT-to-USD exchange rate.

	2016	2017	2018	Variance
Average dated Brent price (DTD)	43.73	54.19	71.31	32%
Inflation rate – Kazakhstan (%)	8.50%	7.10%	5.3%	-2.1 bp
Average exchange rate (KZT to USD)	342.16	326.00	344.85	6%

In 2018, oil quotes continued growing, as a result, the average dated Brent price increased by 32%. The factors driving up the prices for most of 2018 were sanctions against Iran, an OPEC-plus agreement to cut production rates, and increased global oil demand. However, oversupply and lowered forecasts for oil demand due to a slowdown in the global economy led to a decrease in quotations by the end of the year. It is expected that the pressure on oil quotes will remain the same in 2019.

According to the Ministry of Energy, Kazakhstan produced 90,360 thous. tonnes of oil in 2018, which is 4.8% more than in 2017 and is a historical maximum. The growth was secured by an increase in production at the three largest fields: Kashagan, Tengiz and Karachaganak. Oil production from the three large projects amounted to approximately 54 million tonnes, including 13.2 million tonnes at the Kashagan Field (120% of the 2018 plan), 28.6 million tonnes at Tengiz, and 12.2 million tonnes at Karachaganak. In 2019, the production rates are expected to amount to 89 million tonnes of oil, which is mainly due to the reduced production at the old fields, and the expected overhaul of large fields.

In 2018, some legislative reforms took place to improve the appeal of investment in the oil and gas sector and increase the resource base. Changes in the Tax Code and the Code on Subsoil and Subsoil Use have already been put into effect and are yielding results.



OPERATING RESULTS

Oil Production

Hydrocarbon prospecting and exploration, field development and oil production are carried out under eight of the following subsoil use contracts: Kenbay Field (Contract No. 37), Novobogatinsk South-East Field (Contract No. 61), 22 fields (Contract No. 211), three fields of the Taisoigan Block (Contract No. 327), Liman Block (Contract No. 406), 14 fields (Contract No. 413), Novobogatinsk West Field (Contract No. 992), Karaton-Sarkamys Block (Contract No. 3577).

As of January 1, 2019, Embamunaigas JSC had 45 fields with oil reserves in categories A+B+C, totaling:

- ▶ original oil-in-place – 619,518 thous. tonnes,
- ▶ original recoverable oil reserves – 254,912 thous. tonnes,
- ▶ remaining recoverable oil reserves – 74,304 thous. tonnes;
- ▶ cumulative production – 180,608 thous. tonnes;
- ▶ current ORF – 29.2%.

including from 33 fields under development:

- ▶ original oil-in-place – 572,664 thous. tonnes;
- ▶ original recoverable oil reserves – 236,108 thous. tonnes;
- ▶ remaining recoverable oil reserves – 70,936 thous. tonnes;
- ▶ cumulative production – 165,172 thous. tonnes;
- ▶ current ORF – 28.8%.

Nine fields are temporary abandoned, they are Dossor, Iskine, Tanatar, Komsomolsk, Bek-Beke, Sagiz, Makat, Tyulyus, Tazhigali. Three fields are under exploration, they are Novobogatinsk Central, S. Nurzhanov (northwestern wing), Uaz North.

In QI 2018, the State Commission on Mineral Reserves of the Republic of Kazakhstan (SCMR RK) recorded the preliminarily estimated reserves from the S. Nurzhanov (northwestern wing), Novobogatinsk Central Fields on the state register of reserves, and Uaz North in QIII 2018, which were put into trial operation.

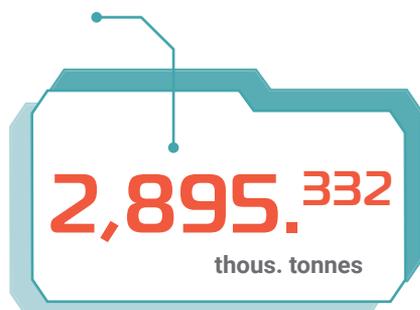
By the end of the reporting year, the cumulative production at the 33 fields under development amounted to more than 165 million tonnes of oil and about 71 million tonnes of remaining recoverable oil reserves, i.e. 70% of the recoverable oil reserves have been produced today.

However, more than 40% of remaining recoverable oil reserves (about 32 million tonnes) are hard-to-recover reserves, concentrated mainly in reservoirs with high-viscosity oil of Cretaceous deposits, such as Kenbay (Moldabek East Site), Karsak, Teren Uzyuk, etc., as well as in low-permeable Triassic deposits (S. Nurzhanov Field, etc.).

The rest 60% of remaining oil reserves, the so-called "active reserves", are mainly in the fields that are in the final stages of development and are characterized by a high degree of depletion (more than 85%) and high water content.

At the operating fields, the Company produces oil and intensifies production through the introduction of new technologies to increase the oil recovery factor.

Oil Production in 2018



As of January 1, 2019, the operating stock of injection wells amounted to 454 wells, of which 427 active wells, 23 inactive wells and 4 wells to be abandoned.

As of January 1, 2019, there were 7,490 wells drilled at the fields, of which 4,221 abandoned wells, 50 intake wells. There are 236 monitoring wells. The operating stock consists of 2,217 producing wells and 454 injection wells. There are 2,144 oil wells and 427 injection wells in the operating fund. There are 57 inactive oil wells, 11 wells to be abandoned, five wells under development. There are 23 inactive injection wells and four inactive wells to be abandoned.

Since the share of hard-to-recover reserves of fields is steadily growing, one of the main tasks is to stabilize the oil production rates, which is achieved by applying a set of measures, such as drilling new wells, major and current well overhauls, systematic work with the well stock, increasing the operating rate, extending the time between overhauls, implementing advanced technologies and optimizing the field development system.

In order to increase the oil recovery factor, along with conventional methods to improve the oil recovery, Embamunaigas JSC currently applies new technologies with the involvement of leading research institutes of Kazakhstan. New technologies are being actively introduced to extend the time between overhauls (TBO) of well operation.

The expected volume of oil production for 2018 was exceeded by about 332 tonnes, and the total production amounted to 2,895,300 tonnes. The average daily oil production was 7,932 tonnes per day. The plan for 2019 has been maintained at 2,895 thous. tonnes.

Oil Production within Embamunaigas JSC, tonnes

Company	2016	2017	2018		2019	
	Actual	actual	Plan	Actual	Var.	Plan
Embamunaigas JSC	2,832.008	2,840.015	2,895.000	2,895.332	0.332	2,895.000
Including at OGPO of:						
Zhaiymunaigas	954.171	953.679	944.063	944.153	0.090	935.142
Zhylyoimunaigas	989.14	1,034.925	1,109.707	1,109.859	0.152	1,123.595
Dossormunaigas	404.283	371.531	366.430	366.473	0.043	362.224
Kainarmunaigas	484.414	479.880	474.800	474.847	0.047	474.039

Associated Petroleum Gas Production

Associated petroleum gas is produced at 25 fields of Embamunaigas JSC.

Associated Petroleum Gas Production, mln m³

Indicators	2016	2017	2018		
	Actual	Actual	Plan	Actual	Var.
Production	191.649	199.756	219.845	221.228	1.4

Geological Exploration

Considering the fact that 60% of the remaining recoverable oil reserves are in the fields that are in the final stages of development, it becomes more and more difficult for the Company from year to year to keep the annual level of oil production in the amount of 2.9 million tonnes and, in particular, to increase it; in order to solve this task, an expanded replenishment of oil reserves through the intensified geological exploration is required. In this regard, the Company has recently intensified geological exploration, both within the developed fields, and within the promising structures of the pre-salt and inter-salt (subsalt) sediment complexes within the exploration blocks.

In the reporting year, 2D CDPM seismic surveys were conducted at the Emba-5 Site in Aktyubinsk Region, data processing and interpretation of the results of the work performed is currently being carried out, and if the Site is promising, it will be decided to study it further.

In 2018, 3D CDPM field seismic exploration began at the Karaton-Sarkamys (Contract No. 3577) and Taisoigan (Contract No. 327) Exploration Blocks, the work to be completed in 2019. Re-processing, reinterpretation of 3D CDPM data at the Karaton-Sarkamys Block is underway in order to identify new promising sites in the super-salt complex and clarify the distribution of reservoir deposits.

In order to clarify the geological structure and search for oil and gas deposits, six exploration wells were drilled in the supra-salt and subsalt deposits – Botakhan No. 301, Novobogatinsk West No. 22, No. 24, Karaton 601, Zhanatalap 305, Teren-Uzek East G-1; the planned surveys are in progress.

There are three wells under drilling – G-1 in Tazhigali, G-1 in Aktobe West, G-10 in Baytobetara.

NEN-33 and NNE-3 were drilled and tested, and inventory of 2017 was verified.

Mining allotments were obtained for subsoil use operations at the S. Balgimbayev, Zhanatalap, Kamyshitov Southeast, Kamyshitov Southwest Fields (Reg. No. 319-D-UVS dated March 14, 2018), Novobogatinsk Southeast (supra-salt) (Reg. No. 321 D-UVS dated April 24, 2018), Novobogatinsk West (Reg. No. 330 D-UVS dated November 20, 2018). The increment of recoverable oil reserves, taking into account the expansion of mining allotments of deposits, amounted to 4,295 thous. tonnes.

In 2018, the fulfillment of valid long-term contracts continued: Geochemical Studies of Oil and Core Samples; Programs for the Development of Associated Gas Processing at Fields during Trial Operation; Seismic Data Storage, Data Bank and Technical Services for Embamunaigas JSC; Storage and Transportation of Core Material at Embamunaigas JSC; Research and Study, Analysis of Core Material at Embamunaigas JSC.

In addition, within the competence of the Exploration Department and the New Project and Subsoil Use Department, a great deal of work was done on negotiations with the sole shareholder in terms of obtaining the approval of the Investment Committee for exploration volumes, coordination and approval of changes in contractual obligations (Addenda to the Contracts) with the Committee of Geology and Subsoil Use of the Ministry of Investment and Development of the Republic of Kazakhstan (Notifying Authority), Ministry of Energy of the Republic of Kazakhstan (Competent Authority).

Conducting exploration operations under existing and new contracts will contribute to the formation of a long-term resource base.

CAPITAL EXPENDITURES

Capital Expenditures in 2018

44,201
mln KZT

In 2018, the Company's capital expenditures amounted to 44.2 billion KZT, and grew by 16% vs. 2017. 31% of expenditures were taken by construction work due to the implementation of large investment projects. 28% accounted for the acquisition of fixed assets. A bit more than 20% of capital expenditures (9.3 billion KZT) were taken by development drilling; expenditures for exploration drilling amounted to approximately 8.2 billion KZT, or 18% of CAPEX.

Capital Expenditures, mln KZT

Investment items	2014	2015	2016	2017	2018
Construction operations	12,333	10,685	30,989	12,618	13,920
FA and IA purchase	4,556	5,564	3,536	8,375	12,175
Production drilling	13,279	9,213	8,253	8,632	9,306
Prospecting and exploration drilling	3,225	2,163	4,620	8,118	8,158
Other	15,606	549	1,271	304	641
Total CAPEX	48,999	28,174	48,669	38,047	44,201



INNOVATIONS

In order to implement the tasks set in the strategy, a wide range of technological innovations has been introduced. The Company develops and supports advanced solutions that ensure higher efficiency and transparency of the business due to improved employee performance and reduced costs.

Smart Field

In 2016, Embamunaigas JSC implemented a pilot project *Smart Field* at the Uaz Field. The technical solution was developed by the Company's employees together with domestic IT and new technologies experts. As a result, the field operates in a digital development mode. Having achieved positive results at the Uaz Field, it was decided to replicate the system to other fields, which was in progress in 2017–2018 and will continue until 2023.

The Smart Field is an automated system designed to control the oil and gas field, which allows achieving its maximum performance by integrating disparate systems into a single information system. The main goal of introducing the concept of a smart field is to improve the process of management decision-making support in relation to mature assets, determining the feasibility of extra costs to extend the depletion period and reduce risks.

Combining various sensors, mobile devices, etc. into a single system makes it possible to analyze the data acquired and control the system from a single operational center and respond almost instantly to changing system parameters. The benefits of implementation include reduced operating costs for equipment operation, increased operating rate of the existing well stock, saving energy, reduced downtime of wells, optimizing the development mode of a field, minimizing risks to health, environment and safety, etc.

The technologies for the development of smart fields do not stand still and constant work is required to update the project. In this connection, in 2018, Embamunaigas JSC established a working group that studies new technologies and solutions implemented by international oil and gas companies in order to expand the existing project *Smart Field*.

Maintenance and Repair Project

In 2018, the Embamunaigas Prospective Development Department introduced a new maintenance and repair (M&R) management model. The project is aimed at improving the accuracy of planning, reducing the amount of unscheduled repairs, reducing accident rates and costs, a number of downtime events and equipment failures. In addition, the new model contributes to increasing the turnover of inventories for repairs, improves the transparency of operations and the quality of accounting, and also contributes to the formation of a new culture of lean production.

The *Smart Field* project is one of the key projects for the oil and gas industry and is included in the list of activities of the state program *DIGITAL KAZAKHSTAN*. The Smart Field is an automated system to manage an oil and gas field, which allows achieving its maximum efficiency by integrating disparate systems into a single information system.



**SMART
CONTROL STATION**



**VEHICLE
MONITORING**



**GEOGRAPHIC
INFORMATION SYSTEM**

SMART FIELD SYSTEM CAPABILITIES



WELL PRODUCTION
MONITORING



WELL SERVICING
TEAM MONITORING



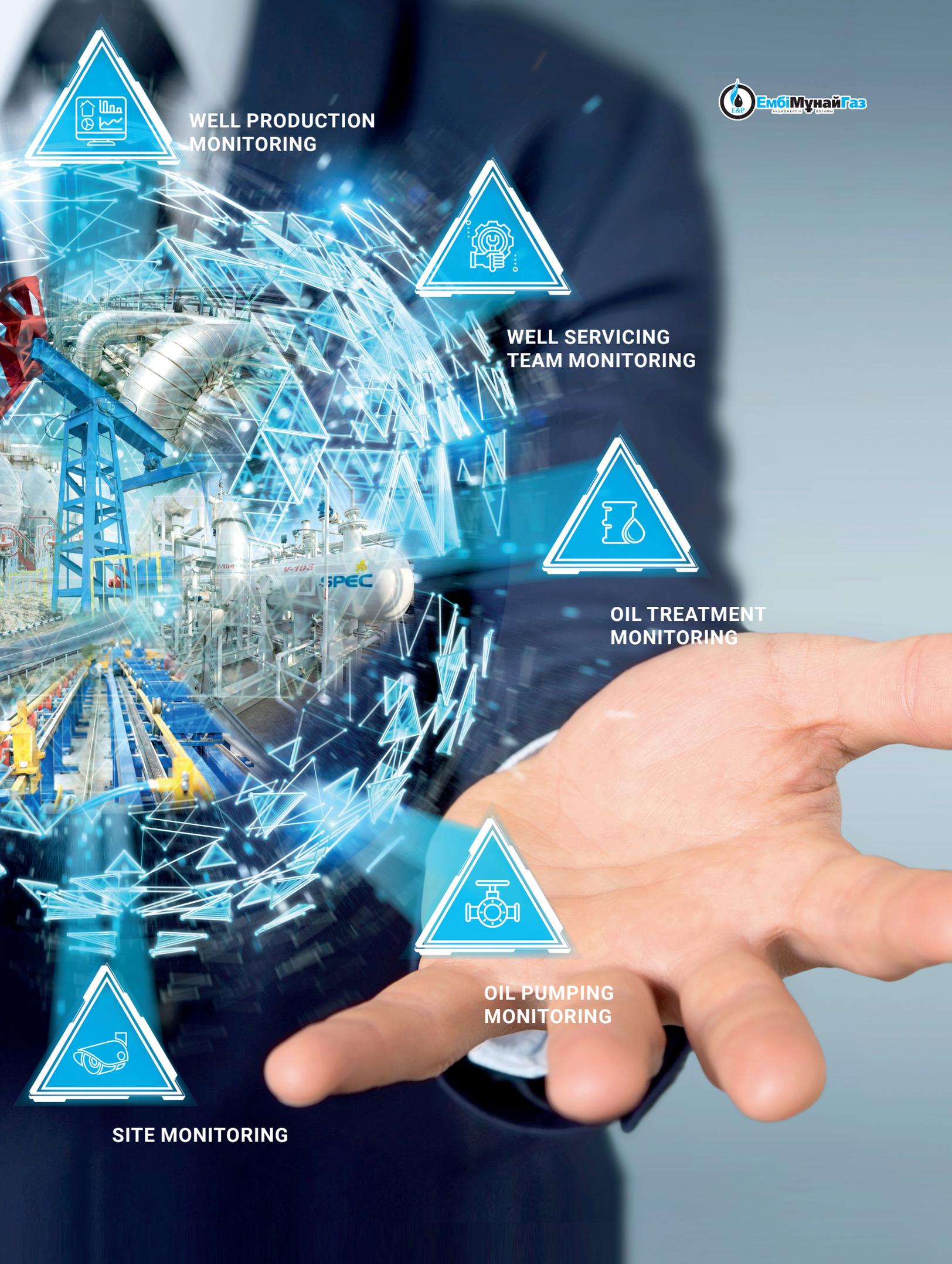
OIL TREATMENT
MONITORING



OIL PUMPING
MONITORING

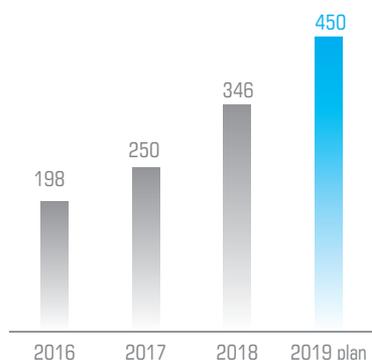


SITE MONITORING



Accounting System Development

Growing Number of SAP System Users, ppl



The projects for the introduction of new technologies contribute to an increased oil recovery factor, which makes it possible to increase reserves and improve production.

The Prospective Development Department is currently working on automating business processes based on the SAP ERP system. The goal of the Company's IT strategy is to effectively support existing business processes and introduce and automate new business processes in order to optimize costs. The introduction of new SAP modules can improve the quality of management of production and financial functions. The main task of the SAP ERP system is to build correct and actual reporting for making timely management decisions.

The introduction of new SAP ERP modules allows covering an increasing number of business processes. The more users of different departments will be covered by the SAP system, the more transparent the business processes will be. The SAP system shows "bottlenecks" and thereby helps to make management decisions.

In 2018, in particular, automation of works and services was introduced. The system generates a request for a certain piece of work/service and it goes through the chain until the work is completed in full, i.e. invoice accepted. Accordingly, user-friendly reports were developed. The SAP Solution Manager user support system was implemented, which automates the registration of the requests received from users. The Tax Accounting module was implemented in accordance with the changes in the Tax Code of the Republic of Kazakhstan. The SAP system was integrated with the ECF website (digital invoices). A WMS (Warehouse Management System) was implemented. The module allows automating warehouse accounting online, producing transparent warehouse accounting, improving the performance of the warehouse complex, and also monitoring the status of warehouse stock.

New Technologies

In order to ensure sustainable growth in production, it is necessary to introduce new methods of work, new production and well-drilling technologies for mature fields, invest time and effort in upgrading onshore facilities. A lot of what is used in the Company to solve specific process problems and problematic issues that arise as the fields are exploited has been introduced in the Department of New Engineering and Technology (DNE&T). First introduced at Embamunaigas JSC technologies with high technical and economic characteristics and well-proven in operation under conditions similar to those existing at the Company's fields, whether the results of applied research of research organizations, legal entities and individuals, mass types of machinery and equipment or the introduction of innovative technologies, are handled in this Department.

All pilot tests (PT) of prototypes of machinery, technical devices and innovation proposals are carried out according to the test program, which is based on the technical conditions developed by the inventors. A total of nine PT were conducted in 2018. Three PT provided a negative result, and three are currently being monitored. Positive results were obtained from three PT: the UDS-Techno-101 device allows extending the time between treatments (TBT) and time between overhauls (TBO) at the blowing wells, and the BHH (bottomhole heater) allows this to be achieved at the wells operating in a mechanized way; in addition, for the period from Nov 6, 2018 to Jan 11, 2019, there were pilot tests of the well drilling and overhaul online reporting platform DDR-Pro at the Embamunaigas JSC facilities, which also proved the technology to be a success.

Engineers and geologists from oil and gas departments, specialists from Embamunaigas JSC and KazMunayGas Research and Development Institute of Production and Drilling Technologies work together to improve water-flooding technologies, improve the well capacity, reduce idle well stock and extend TBO, TBT, mean time between failures of mechanized production systems.

PROCUREMENT ACTIVITIES

The Company conducts procurement activities in accordance with the Rules for the Procurement of Goods, Works and Services by Samruk-Kazyna National Welfare Fund Joint-Stock Company and organizations with fifty and more percent of voting shares (interest) owned whether directly or indirectly by Samruk-Kazyna JSC, whether as a property or upon trust management. The Rules determine the procedure for customers to purchase goods, works or services at their own expense.

The procurement procedure includes the development and approval of the procurement plan (s); supplier selection; execution and performance of the procurement contract.

The Company is working on the development of local content in the structure of purchased goods and services in order to support domestic suppliers.

Procurement Volume, mln KZT (net of VAT)

Description	Amount	Performance %	
Total procurement plan for 2018	89,898.58	100	
including			
Goods	11,984.46	13.3	
Works	51,890.56	57.7	
Services	26,023.56	28.9	
Total procurement with suppliers assigned	89,895.82	100	LC share
including			
Goods	11,981.70	99.98	42.0
Works	51,890.56	100.0	94.0
Services	26,023.56	100.0	94.0
Savings under the contracts	7,116.00	8	
including			
Goods	1,461.00	12.2	
Works	2,444.00	4.7	
Services	3,211.00	12.3	

FINANCIAL REVIEW

This Section is based on the audited financial statements of the Company.

Key Financial Indicators, mln KZT

	2014	2015	2016	2017	2018			
	Actual	Actual	Actual	Actual	Plan	Actual	Var.	%
Oil production, thous. tonnes	2,823	2,823	2,832	2,840	2,895	2,895	0	0
Receipts (income)	344,675	198,113	243,517	309,747	332,627	433,436	100,809	30
Cost of sales	-119,229	-94,991	-95,772	-121,290	-134,703	-137,184	-2,481	2
Gross income	225,446	103,121	147,745	188,457	197,924	296,252	98,328	50
General and administrative expenses	-15,738	-24,542	58	-9,896	-12,934	-47,840	-34,906	270
Transport and selling costs	-135,071	-75,869	-70,366	-102,991	-119,674	-155,497	-35,823	30
Operating income (loss)	74,638	2,711	77,437	75,570	65,315	92,915	27,600	42
Financial income /(expenses), net	-2,714	303	312	461	-2,650	-1,176	1,474	-56
Other profit /(loss) net	20,538	62,905	-586	-482	0	21,216	21,216	0
Profit/(loss) before tax	92,462	65,919	77,164	75,548	62,665	112,955	50,290	80
Corporate income tax payable	-20,225	-20,457	-15,803	-19,425	-15,847	-29,566	-13,720	87
Annual profit	72,237	45,462	61,360	56,123	46,819	83,389	36,570	78

The growth of oil production in 2018 was within the target values and exceeded the 2017 values by 2%. The revenue increased by 40% vs. 2017 and exceeded the target values by 30%. The overfulfilment of the revenue plan was caused by an increase in the global oil prices compared to the target average of 29.7% (plan was \$55 per barrel; the average price in 2018 was \$71.31 per barrel), as well as a slight increase in the dollar exchange rate (plan was 340 KZT/USD, the average exchange rate of 2018 was 344.71 KZT/USD). As a result, net profit increased by 49% vs. 2017 and amounted to 83.4 billion KZT, significantly exceeding the target values.

Sales

Volume of Sales and Oil Selling Prices

	2014	2015	2016	2017	2018
Oil export sales					
KTO					
Sales, mln KZT	236,809	118,432	126,832	187,983	262,216
Volume, thous. tonnes	1,920	1,571	1,226	1,526	1,546
Average selling price, thous. KZT/tonne	123	75	103	123	170
CPC					
Sales, mln KZT	106,152	60,767	92,944	101,250	143,444
Volume, thous. tonnes	816	766	860	792	811
Average selling price, thous. KZT/tonne	130	79	108	128	177
Total oil exports, mln KZT	342,961	179,199	219,777	289,233	405,660
Total oil exports, thous. tonnes	2,737	2,338	2,085	2,318	2,357
Domestic oil sales					
POCR					
Sales, mln KZT	–	7,783	18,549	13,583	24,234
Volume, thous. tonnes	–	210	609	358	459
Average selling price, thous. KZT/tonne	–	37	30	38	53
AR					
Sales, mln KZT	–	9,805	3,732	4,602	1,864
Volume, thous. tonnes	–	265	117	121	33
Average selling price, thous. KZT/tonne	–	37	32	38	56
Crude oil					
Sales, mln KZT	12	6	9	6	3
Volume, thous. tonnes	0.26	0.10	0.16	0.10	0.05
Average selling price, thous. KZT/tonne	47	58	58	62	53
Total domestic sales, mln KZT	12	17,594	22,290	18,191	26,101
Total domestic sales, thous. tonnes	0	475	726	479	492
Total sales, mln KZT	342,973	196,793	242,067	307,424	431,761
Total sales, thous. tonnes	2,737	2,813	2,811	2,797	2,849

Oil is sold both to the domestic market and for export. According to the applicable laws, the oil is primarily supplied to domestic refineries, such as Pavlodar and Atyrau refineries. The export direction consists in selling oil along two main routes: through the Caspian Pipeline Consortium (CPC) and Uzen – Atyrau – Samara (UAS) pipelines. These pipelines lead to the seaport of Novorossiysk, Krasnodar Krai, Russia, while CPC transports oil to the CPC sea terminal in the village of Yuzhnaya Ozereyevka (Novorossiysk, Russia), and the UAS pipeline leads to the transshipment complex Sheskharis (Novorossiysk, Russia). After the oil transported to the terminals, it is loaded into tankers to be shipped to customers.

The volume of oil sales in all areas in 2018 increased by 2% in size and by 40% in value, which was due to the improved pricing environment in foreign markets.

Oil exports in 2018 amounted to 2,357 thous. tonnes, the selling costs reached 405.7 billion KZT, with the volume of sales of 1,546 thous. tonnes by the trunk pipeline through KazTransOil, and 811 thous. tonnes through CPC. The average cost of export sales in 2018 was 172,100 KZT per tonne, which is 38% higher than in 2017. The volume of domestic sales in 2018 grew by 3% and reached 492 thous. tonnes.

Sales of Marketable Gas

Marketable gas is treated at two gas treatment facilities at S. Balgimbayev, East Makat Fields. The sale of marketable gas is regulated by Article 15 of Law of the Republic of Kazakhstan No. 532-IV dated January 9, 2012 *On Gas and Gas Supply*. The preemption right of the state is exercised through a national operator – KazTransGas JSC. In accordance with Order of the Minister of Energy of the Republic of Kazakhstan No. 121 dated November 13, 2014 *On Approval of the Rules for Determining the Price of Raw and Marketable Gas Purchased by the National Operator under the Preemption Right of the State*, the Company sold the marketable gas to the national operator for the price not higher than that approved by the Ministry of Energy of the Republic of Kazakhstan.

Embamunaigas JSC treats gas at two gas treatment plants and a gas treatment unit. The two gas treatment plants located at the S. Balgimbayev and East Makat Fields are used to treat the marketable gas, which satisfies the natural gas needs of the population in Issatay, Kzykkok and Makat Districts of Atyrau Region. The marketable gas treated at the Prorva gas treatment unit (Prorva Group of Fields) is sent to the Central Asia – Center gas pipeline.

In 2018, Prorva gas treatment unit reached full capacity, which contributed to the supply of gas to the national operator of a record volume of more than 100.3 million m³ from the resources of Embamunaigas JSC – this is a significant contribution to the development of the gasification of the industry. The Company plans to improve the capacity of Prorva gas treatment unit and will continue working in this direction.

Sales of Marketable Gas

Direction	UoM	2016	2017	2018	2019 Plan
KazTransGas JSC	units, m ³	5,360.690	8,482.240	100,358.450	116,571.603

The implementation of business initiatives for the development of gas infrastructure is associated with the utilization of associated petroleum gas and is aimed at the production both for its own needs and for sale in the local market (power, marketable gas, methanol).

Cost

Cost Analysis, mln KZT

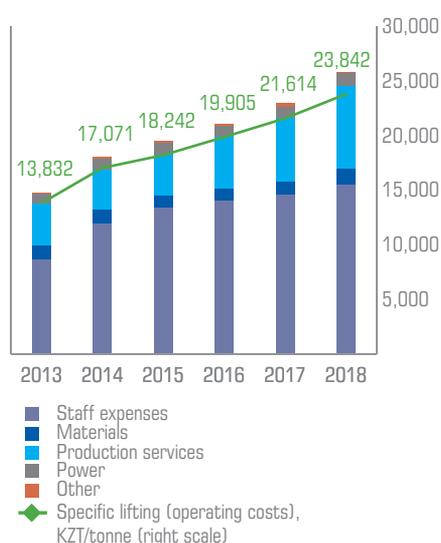
	2018	2017	Var., %
Staff remuneration	48,321	45,474	6
Mineral tax	38,383	27,544	39
Depreciation, depletion and amortization	19,584	16,987	15
Maintenance and repair	14,308	10,622	35
Taxes, other than income tax	4,519	2,073	118
Materials and stock	3,727	3,393	10
Power consumption	2,992	2,705	11
Transportation costs	2,723	1,810	50
Changes in provision for environmental liability	-109	6,270	-102
Reduced liabilities for asset retirement exceeding total capitalized asset	-821	-778	6
Other	5,899	5,858	1
	139,525	121,959	14
Changes in oil residue	(2,341)	(670)	250
Total cost	137,184	121,290	13

In 2018, the cost increased by 13% and amounted to 137.2 billion KZT. The increase in cost is mainly due to an increased mineral tax. As for production costs, there is a 6% increase in staff remuneration, a 35% increase in repair and maintenance costs, an 11% increase in electricity costs, a 10% increase in materials, and a 50% increase in transportation costs.

Lifting

Specific lifting (the ratio of operating costs to production) in 2018 amounted to 23,800 KZT per tonne and increased by 10% vs. 2017. The major volume of operating expenses (52%) is staff remuneration and expenses. About 30% of expenses in 2018 fell on production services, 5% on materials, 4% on power. The unit cost of a tonne of oil in 2018 was 47,400 KZT, which is 11% higher than in 2017.

Lifting Costs, mln KZT



Selling Costs and General and Administrative Expenses

Selling costs, mln KZT	2018	2017
Rent tax	63,900.1	32,583.6
Export customs duty	53,889.7	36,585.8
Transportation costs	37,489.2	33,607.7
Selling fees	218.0	214.4
	155,497.0	102,991.4
General and administrative expenses, mln KZT	2018	2017
Fines and penalties	35,456.90	47.2
Staff remuneration	4,900.30	4,017.90
Depreciation, depletion and amortization	2,150.40	3,047.60
Maintenance and repair	485.3	432
Transportation costs	445.1	299.4
Taxes, other than income tax	292.1	207.6
Sponsorship	207	323.9
Consulting and auditing fees	130.6	105.7
Reversal/accrual of provision for accounts receivable	33.3	-144.3
Other	997.1	2,803.3
	45,098.2	11,140.2

In 2018, selling costs increased by 51% and amounted to 155.5 billion KZT. The increase in such costs is primarily due to the excess of the export customs duty and rent tax due to a higher rate caused by the increase in the global price of Brent crude oil. Transportation costs increased by 12%.

A significant increase in general and administrative expenses was largely due to environmental charges as required by the Department of Ecology of Atyrau Region. The staff remuneration increased by 22% – to 4.9 billion KZT.

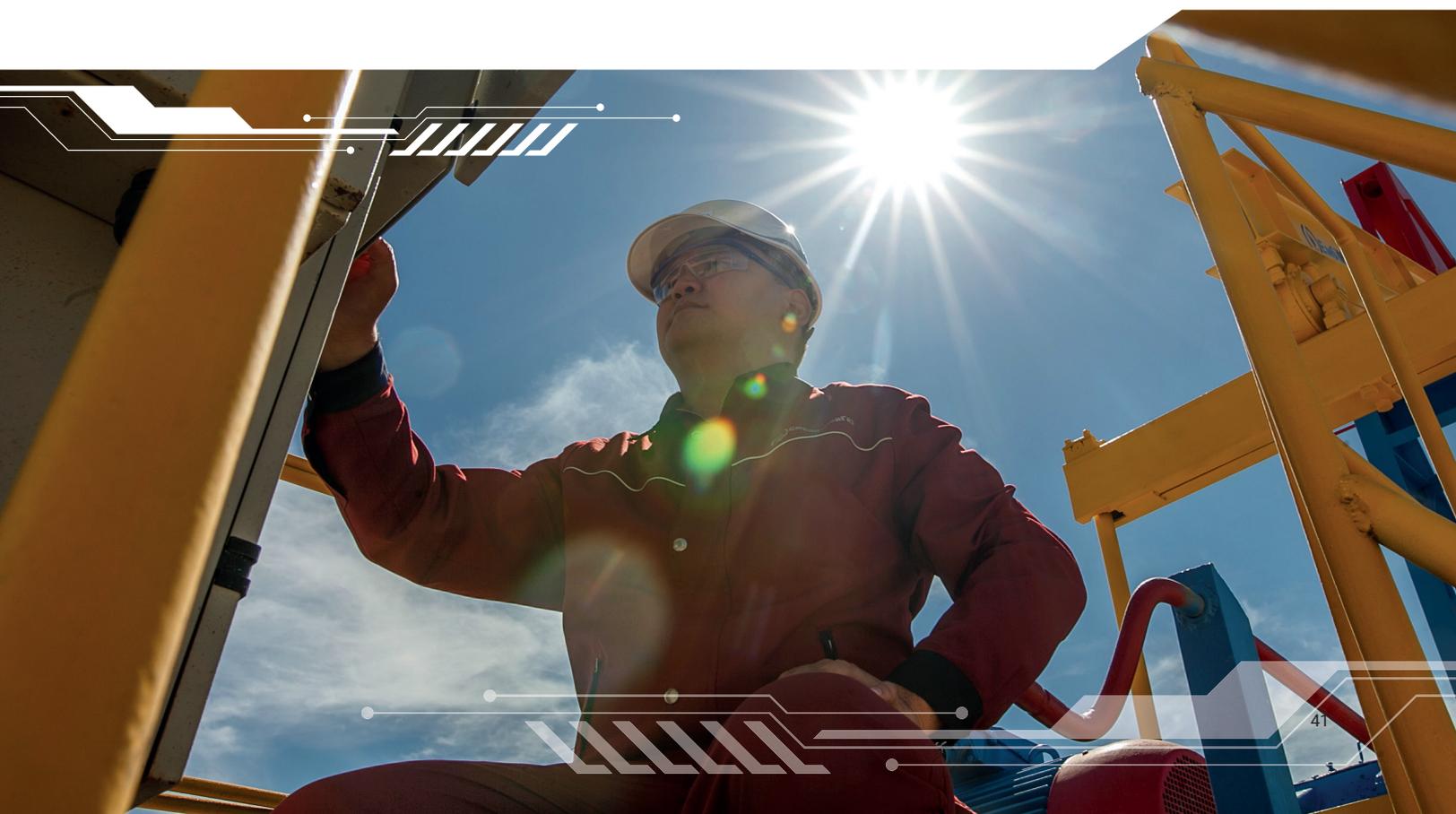
Taxation

Tax Expenses other than Income Tax, mln KZT

	2018	2017	Var., %
Rent tax	63,900	32,584	96
Export customs duty	53,890	36,586	47
Mineral tax	38,383	27,544	39
Social tax	3,091	3,246	-5
Pollution tax	1,969	708	178
Property tax	1,785	1,510	18
Other taxes	1,057	201	425
Total taxes other than CIT	164,074	102,379	60
	2018	2017	Var.,%
Profit before tax	112,955	75,548	50
Income tax expenses	29,566	19,425	52
Effective tax rate	26%	26%	0

A 50% increase in profit before tax due to the favorable financial performance in 2018 led to a corresponding increase in CIT. Income tax expenses in 2018 amounted to 29.57 billion KZT. The effective tax rate remained at 26%.

Total taxes other than CIT increased by 60% in 2018. The rent tax rate and export customs duty increased due to the rise in oil prices in foreign markets. The mineral tax increased due to an increase in the level of production and sales.



Capital and Liquidity

The Statement of Financial Position, mln KZT

	As of December 31, 2018	As of December 31, 2017
Assets		
Long-term assets		
Fixed assets	187,656.19	173,028.95
Intangible assets	20,686.19	15,045.69
Other financial assets	38,005.43	32,258.45
Deferred tax assets	10,380.02	10,415.90
Advances paid for long-term assets	2,154.10	1,670.72
Total long-term assets	258,881.94	232,419.71
Current assets		
Inventory	10,944.11	7,272.09
Prepaid income tax	3,968.34	0.77
Prepaid taxes and VAT receivable	15,899.35	12,244.84
Advances paid and deferred expenses	3,507.44	2,819.25
Trade and other accounts receivable	30,838.85	35,948.75
Other financial assets	–	31,884.02
Cash and cash equivalents	111,445.89	73,423.07
Total current assets	176,603.98	164,364.90
Total assets	435,485.92	396,784.61
Capital		
Authorized capital stock	162,399.82	162,399.82
Retained earnings	153,032.64	157,246.24
Total capital	315,432.46	319,646.06
Liabilities		
Long-term liabilities		
Historical liabilities	5,806.81	1,807.47
Provisions	24,151.25	23,530.09
Total long-term liabilities	29,958.06	25,337.56

	As of December 31, 2018	As of December 31, 2017
Current liabilities		
Historical liabilities	1,573.57	2,623.49
Provisions	36,329.09	8,413.48
Mineral tax and rent tax payable	23,287.08	17,947.34
Trade and other accounts payable	28,905.67	22,816.67
Total current liabilities	90,095.41	51,800.99
Total liabilities	120,053.47	77,138.55
Total liabilities and capital	435,485.92	396,784.61

In 2018, the Company's assets increased by 10% and amounted to 435.5 billion KZT. 41% are long-term assets and 59% are short-term assets. Asset growth is associated with an increase in fixed assets by 8% and intangible assets by 37%. Assets increased mainly due to the commissioning of oil and gas assets and exploration and evaluation assets from the assets under construction in the amount of 20.1 billion KZT and an increase in cash of 6.1 billion KZT.

The Company's financial assets include accounts receivable in the amount of 30.8 billion KZT (85% of accounts receivable are expressed in USD), as well as cash in accounts and deposits of second-tier banks in the amount of 111.4 billion KZT. Long-term financial assets consist of contributions to abandonment fund opened under the subsoil use contract separately for each contract until the expiration of each contract. As of December 31, 2018, total abandonment fund contributions amounted to 38 billion KZT.

The capital remained almost the same and amounted to 315.4 billion KZT. 51% of the capital is the authorized stock capital, 49% is retained earnings.

As of December 31, 2018, the Company's liabilities amounted to 120.1 billion KZT and increased by 56% compared to the same period of 2017. The liabilities increased due to an increase in provisions for an environmental penalty as prescribed by the Department of Ecology of Atyrau Region for environmental violations in accordance with the Code of Administrative Offenses of the Republic of Kazakhstan, as well as an increase in actuarial liabilities of 4.5 billion KZT. 75% are short-term liabilities: 40% of provisions, 26% of taxes payable, and 32% of accounts payable.

The Company has the necessary liquidity cushion and has a stable financial position.

DIGITAL EMBARUNOILGAS

OIL TREATMENT MONITORING

The Oil Collection and Treatment Monitoring Module introduced to the Smart Field system allows specialists to monitor production facilities online and obtain information on such facilities as:

- ▶ Oil level in VST
- ▶ Gas oil separator
- ▶ Settling tanks
- ▶ Fluid level with phase separation (oil and gas) in HST; fluid temperature
- ▶ Preheaters



Oil Collection and Treatment

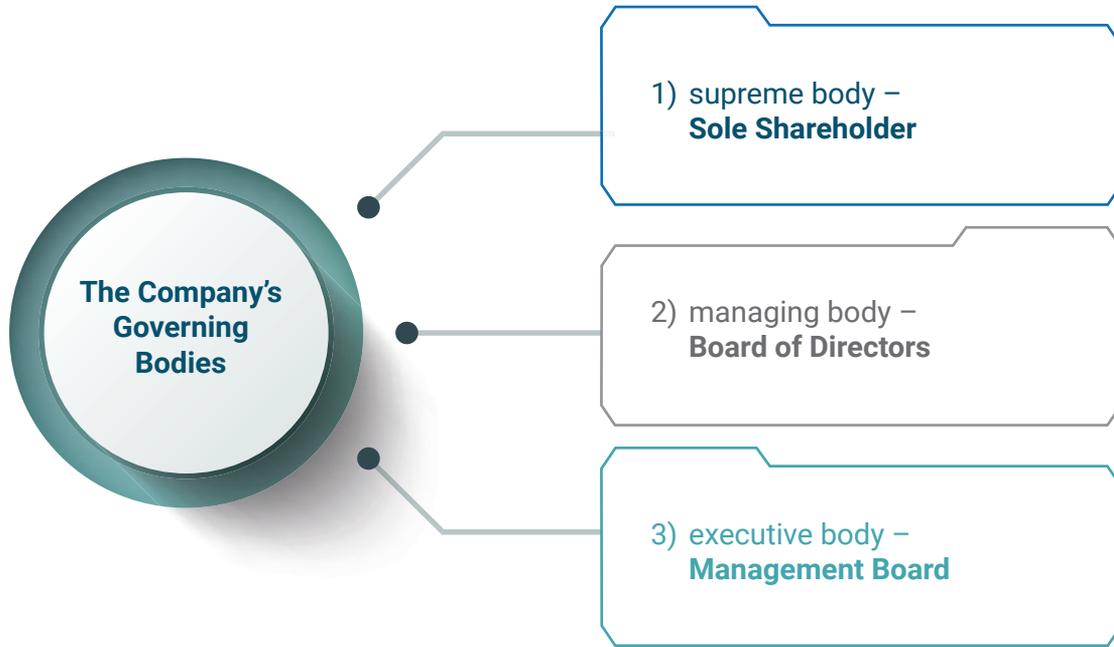


04



CORPORATE GOVERNANCE

THE COMPANY'S GOVERNING BODIES



BOARD OF DIRECTORS

Changes in the Board of Directors in 2018

By Resolution of the Sole Shareholder of Embamunaigas JSC No. 32 dated August 27, 2018, the powers of the Members of the Board of Directors A. Shane, D. Tebirikov were early terminated, and A. Beknazarova was elected as a representative of the Sole Shareholder (Vice President/Financial Controller of KazMunayGas NC JSC).

By Resolution of the Sole Shareholder of Embamunaigas JSC No. 44 dated October 30, 2018, the powers of the Member of the Board of Directors K. Nurgaliyev were terminated early, and M. Salimgereyev was elected as a representative of the Sole Shareholder (Managing Director for Oil and Gas Production (Technical Director) of KazMunayGas NC JSC).

Members of the Board of Directors as of December 31, 2018

Kurmangazy Iskaziyeu

Chairman of the Board of Directors of Embamunaigas JSC, Deputy Chairman of the Management Board for Exploration, Production and Oilfield Services of KazMunayGas NC JSC.

He graduated from the V. Lenin Kazakh Polytechnic Institute as Mining Engineer-Geologist.

He started his career as a collector operator at the Balykshy Exploration Drilling Department, then worked as a geological engineer of the Thematic Party, as a cementing operator of the plug-back operation office of Embaneft PA. In 1991–1993, he was a geologist of Drilling Expedition No. 1 of the Balykshy Exploration Drilling Department, and in 1993–1995 he was a geologist of the Central Dispatch Office of the Atyrau Drilling Operations Department of Embamunaigas JSC. From 1995 to 2004, he was the Chief Geologist, Deputy Director of the Atyrau Department of Enhanced Oil Recovery and Well Overhaul (ADEOR & WO), Director of the Department of Geology and Oil and Gas Field Development of Embamunaigas OJSC. In 2004–2008, he worked at KazMunay-Gas Exploration Production JSC as Deputy Director and then Director of the Geology and Development Department. From 2008 to 2015, he worked at KazMunayGas NC JSC as Executive Director for Oil and Gas Production, Managing Director for Geology, Geophysics and Reservoirs, Chief Geologist, Deputy Chairman of the Management Board for Geology and Prospective Projects, Managing Director for Non-Operating Assets (Tengiz, Kashagan, Karachaganak), Managing Director for Geology. From January to September 2015 – CEO (Chairman of the Board) of Embamunaigas JSC. From September 23, 2015 to June 12, 2018, he was Director General (Chairman of the Management Board) of KazMunayGas Exploration and Production JSC. Since June 2018, he has been the Deputy Chairman of the Management Board for Exploration, Production and Oilfield Services of KazMunayGas NC JSC.

He was awarded with Certificates of Merit of KMG NC, KMG EP, Geology and Subsoil Use Committee; commemorative medals: Qazaqstan Konstytýtsiasyna 20 jyl (2015), Qazaqstan Respýblikasynyń táýelsizdigine 25 jyl (2016), Qurmet (2016), the Anniversary Medal of the Ministry of Energy of the Republic of Kazakhstan *The 95th Anniversary of Embamunaigas JSC* (2017).

Honored Explorer of the Republic of Kazakhstan, winner of the Al Farabi Science and Technical State Award of the Republic of Kazakhstan for his series of works on Scientific Rationale of the Hydrocarbon Potential of Kazakhstan (2015).

Doctor of Geological and Mineralogical Sciences, author of more than 12 scientific publications, co-author of the book *Geological Structure and Oil and Gas Prospects of the Northern and Middle Caspian Sea*.





Dastan Abdulgafarov

Member of the Board of Directors of Embamunaigas JSC, Deputy Director General for Economy and Finance of KazMunayGas EP JSC

Dastan Abdulgafarov has been the Deputy Director General for Economy and Finance since January 2015.

From September 2006 until his last appointment, he worked as Managing Director for Business Development. He graduated from the Kazakhstan Institute of Law and International Relations with a degree in International Law and the Diplomatic Academy of the Ministry of Foreign Affairs of the Republic of Kazakhstan with a degree in International Economics and Law. He received a Master's degree in oil business at the AGIP Corporate University, as well as the Executive MBA of the Moscow School of Management Skolkovo. He used to work at KazMunayTeniz OOC JSC, KazMunayGas NC JSC.



Aigul Beknazarova

Member of the Board of Directors of Embamunaigas JSC, Managing Director/ Financial Controller of KazMunayGas NC JSC

She has been Managing Director/Financial Controller of KazMunayGas NC JSC since June 2018. She used to be the Vice President/Financial Controller of KazMunayGas NC JSC.

Over the years, she worked as Head of the Structural Financing Department, Director of the International Department of Halyk Bank of Kazakhstan JSC, Managing Director for Relations with Financial Institutions of Kazinvestbank JSC, Director of Corporate Financing Department of KazMunayTeniz JSC, Director of Corporate Financing Department of KazMunayGas NC JSC. She graduated from the Kazakh State Academy of Management with a degree in International Monetary and Financial Relations (1997), PACE University (New York) with a degree in Financial Management (1999).

Malik Salimgereyev

Member of the Board of Directors of Embamunaigas JSC, Managing Director for Oil and Gas Production (Technical Director) of KazMunayGas NC JSC

He graduated from the I. Gubkin Moscow Institute of Petrochemical and Gas Industry as a Mining Engineer Geologist. He is a Candidate of Geological and Mineralogical Sciences with a major in Geology and Exploration of Oil and Gas Fields of the Institute of Geology of the Academy of Sciences of Kazakhstan, Almaty.

Since August 2018, he has held the position of Managing Director for Oil and Gas Production at KMG NC; he used to be Deputy Director General for Occupational Safety, Environmental Protection and Prospective Development of KMG EP.

Over the years, he served as Managing Director for Occupational Safety, Environmental Protection and Drilling of KMG EP, Advisor to the Chairman of the Management Board of KMG NC.

He started his career in the Komsomolskneft OGPO (currently Kalamkasmunaigaz) of the Mangyshlakneft Production Association (currently Mangistaumunaigas JSC) in Aktau, making his way from the 5 grade operator of the research and production workshop to the Senior Geologist of oil and gas production workshop. He worked as head of the Process Department for the development of oil and gas fields, Chief Geologist at Karazhanbastermneft OGPO of the Soyuztermneft Scientific and Production Association of Aktau, Vice President for Geology and Oil Field Development, First Vice President of Karazhanbasmunai JSC of Aktau KazNIPIneft of Mangyshlakneft PA, Director of the New Projects Department of Kazakhoil NOCC JSC of Astana, Vice President for Production of Kazakhoil-Emba in Atyrau, Deputy Director for Production of Embamunaigas PB in Atyrau.



Anuar Zhaksybekov

Member of the Board of Directors, Chairman of the Management Board of Embamunaigas JSC

After finishing Baichunas secondary school No. 3 in 1982, he started his career as an operator for oil and gas production at the Baichunas Oil and Gas Production Office ("OGPO") of Dossorneft of Kazakhoil Emba OJSC.

After his military service, he continued working as an operator at the Karsak oil and gas production workshop, later he was a district geologist at the Atyrau Drilling Operations Department, a leading geologist, a deputy head of the oil recovery and well overhaul section in Makat District of Kazakhoil Emba OJSC.

In 1993, he graduated from the Patrice Lumumba Peoples' Friendship University (Moscow), with a degree in Geology and Exploration of Oil and Gas Fields.

In 1999, he was appointed Chief Geologist at Makatneft OGPO of Kazakhoil Emba OJSC.



In 2000, he was invited to Kazakhoil NC JSC to the position of Chief Engineer of the Department of Production Management of Kazakhoil NC JSC. He worked as Chief Engineer, Manager, Deputy Director of the Geology and Development Department, Director of the Geology Department.

From 2004 to 2007, he headed the Department of Geology and Geophysics of the Geological and Technological Service of KazMunayGas NC JSC.

In 2007–2009, he served as Director of the Department of Geology, Geophysics and Reservoirs of the Exploration and Production Unit of KazMunayGas NC JSC, Director of the Department of Geology and Geophysics of the Exploration and Production Unit of KazMunayGas NC JSC.

In December 2009, he was appointed as an exploration manager from KazMunayGas NC JSC at the founded N Operating Company LLP, Chairman of the Technical Subcommittee for Geological Exploration.

In February 2013, he was appointed Deputy Director General for Geology and Development of KazMunayGas Exploration Production JSC, Chairman of the Technical Committee for Exploration, Chairman of the Supervisory Board of Exploration Assets of KMG EP JSC. He supervised joint ventures with the participation of KazMunayGas Exploration Production JSC, such as UralOilGas JV, interest with Chinese FIOC and Hungarian MOL, Karpovsky North JV.

In October 2013, he was appointed Deputy Director General for Prospective Projects of Kashagan B.V. PCLLB, a Member of the Advisory Technical Committee of the Shareholders of the North Caspian Project.

Since September 2015, he has been Deputy Director General for New Projects and Technologies at Embamunaigas JSC.

In April 2017, by the Resolution of the Board of Directors of Embamunaigas JSC, he was elected Chairman of the Company's Management Board.

He was awarded the Certificate of Merit of the USSR Ministry of Petroleum Industry; Certificate of Merit of KazMunayGas NC JSC; Certificate of Merit of Samruk-Kazyna NWF JSC; Letter of Acknowledgment of the Committee of Geology and Mineral Protection of MEMR RK; Badge of Honor of the Ministry of Energy and Mineral Resources of the Republic of Kazakhstan *The 90th Anniversary of Makat*; Badge of Honor of the Ministry of Oil and Gas of the Republic of Kazakhstan *The 100th Anniversary of the Dossor Field* (2011); *The 50th Anniversary of Prorva*; a diploma and a badge *Honored Explorer of the Republic of Kazakhstan* of the Ministry of Industry and New Technologies of the Republic of Kazakhstan (2012); the medal *For the Contribution to the Development of the Oil and Gas Industry of the Republic of Kazakhstan* of the Ministry of Oil and Gas of the Republic of Kazakhstan (2014); a commemorative medal of the Ministry of Energy of the Republic of Kazakhstan *The 95th Anniversary of Embamunaigas JSC* (2017), Qurmet Order (2017).

Zhannat Yertlessova

Independent Director of the Board of Directors of Embamunaigas JSC, Director of Expert Kazakhstan LLP

She started her career as a research assistant at the Research Institute of Economics and Market Relations under the State Planning Committee of the Kazakh SSR. In 1992, she was appointed Deputy Director of the Institute. Then she was invited to the Ministry of Economy of the Republic of Kazakhstan to head the Department of Financial and Credit Policy.

In 1994, she became the First Deputy Minister of Economy of the Republic of Kazakhstan. She worked in various positions, such as Head of the Center for Economic Reforms under the Cabinet of Ministers of the Republic of Kazakhstan and the Government of the Republic of Kazakhstan, First Vice Minister of Finance, Vice President of Kazakhtelecom JSC, Deputy Head of the Presidential Administration, Deputy Minister of Defense of the Republic of Kazakhstan, First Deputy Chairman of the Agency on Regulation of Natural Monopolies and Protection of Competition, the Chairman of the Governing Board of the Taxpayers Association of Kazakhstan, the Deputy Chairman of the Board of the National Chamber of Entrepreneurs, etc. She is currently Director of Expert Kazakhstan LLP.



Baltabek Kuandykov

Independent Director of the Board of Directors of Embamunaigas JSC

Doctor of Geological and Mineralogical Sciences, Corresponding Member of the International Economic Academy of Eurasia, Member of the International Academy of Mineral Resources, Member of the American Association of Petroleum Geologists.

He worked as Chief Geologist, Head of the Geological Division, Deputy Head of the Geological Division, Field Geologist of the oil exploration expedition of the Geological Survey Kazneftegazrazvedka of Guryevneftegazgeologia Association, Deputy Minister of Geology, Energy and Fuel Resources of the Republic of Kazakhstan, President of Kazakhstan Caspian Offshore JSC, KazakhOil NOC JSC; Canadian Nelson Resources Limited.

Since February 2006, he has been the President of Meridian Petroleum. Since 2009, he has been the President of the Kazakhstan Society of Petroleum Geologists.



Igor Ukrassin

Independent Director of the Board of Directors of Embamunaigas JSC, Managing Director of SBERBANK (Switzerland) AG, Head of the Corporate Banking Department

In 1994–1996, he was the Head of Sales Planning Division of Operations Department of PEPSI-COLA INTERNATIONAL; in 1998–2013, he was Managing Director of the Investment Banking Division of the European Energy Group CREDIT SUISSE SECURITIES LIMITED; in 2013–2015, Managing Director of SBERBANK CIB.



Independent Decisions of Directors

In accordance with the requirements of the Law of the Republic of Kazakhstan *On Joint-Stock Companies*, the Board of Directors found out that the Directors are independent and believes that Zhannat Yertlessova, Baltabek Kuandykov, Igor Ukrassin are independent in making decisions. The Board of Directors has found out no relations or circumstances that have or can have a significant impact on the independent decisions of these Directors.

Report on the Activities of the Board of Directors

The Board of Directors of Embamunaigas JSC approved the Company's Development Concept until 2027.

The powers of the Board of Directors of Embamunaigas JSC are described in Section 12 of the Articles of Association of Embamunaigas JSC. The Board of Directors is responsible to the Sole Shareholder for effective management and proper control over the activities of Embamunaigas JSC and operates in accordance with the approved decision-making system. The most important functions of the Board of Directors include identifying areas of strategic development and policies of the Company, approving the budget and material internal documents of Embamunaigas JSC, and other significant issues.

The Board of Directors meets on a regular basis and as necessary.

In 2018, the Board of Directors held 54 meetings, including two meetings by in-person voting, 52 meetings by absentee voting.

Over the year, the Board of Directors considered, among other things, the following issues:

- ▶ Indexation of payments to Members of the Management Board, Corporate Secretary, Deputy Chairmans of the Management Board, Managing Directors and Chief Accountant of Embamunaigas JSC.
- ▶ Approval of KPI of Embamunaigas JSC for 2018.
- ▶ Making changes in the staffing table of employees and the organizational chart of the management staff of Embamunaigas JSC.
- ▶ Approval of the adjustment of the 2018 Budget and the 2018–2022 Business Plan of Embamunaigas JSC.
- ▶ Payment of remuneration to top managers of Embamunaigas JSC for 2017.
- ▶ Approval of the 2017 Annual Report of Embamunaigas JSC.
- ▶ Approval of the 2017 Report on the Activities of the Board of Directors and the Management Board of Embamunaigas JSC.
- ▶ Approval of the adjustment of the 2018 Budget of Embamunaigas JSC.
- ▶ Determination of the number of Members of the Management Board of Embamunaigas JSC.
- ▶ Approval of 2019 Budget and the 2019–2023 Business Plan of Embamunaigas JSC.
- ▶ Report on the Company's Performance for 8 months of 2018 and expected results for 2018.
- ▶ Report on the Company's Occupational Safety and Environmental Protection for 8 months of 2018 and the expected results for 2018.
- ▶ Report on the Implementation of the Plan for Procurement of Goods, Works and Services for 8 months of 2018 and the expected results for 2018.
- ▶ Report on the Activities of the Internal Audit Service of KazMunayGas EP JSC in respect of Embamunaigas JSC.
- ▶ The Committees of the Board of Directors of Embamunaigas JSC.
- ▶ Making transactions by the Company with an interest of up to 1 billion KZT.

In addition, the Board of Directors approved some corporate documents in 2018.

General Activities Information for 2018

	Number of meetings	Issues considered in total	Decisions made
Meeting of the Board of Directors, including	54	75	75
In-person meetings	2	22	22
Absentee meetings	52	53	53

The attendance rate of the Members of the Board of Directors and Members of the Committees at the meetings of the Board of Directors and the Committees:

BoD Member	Number of meetings	Internal Audit Committee	Strategic Planning and Risk Management Committee	Production and Technical Committee
Kurmangazy Iskazyev	54			
Dastan Abdulgafarov	53			
Kuanyshbay Nurgaliyev	39			
Shane Andrew Drader	34		1	
Damir Teberikov	34			
Anuar Zhaksybekov	54			
Malik Salimgereyev	16			
Aigul Beknazarova	20			
Zhannat Yertlessova	54	2	5	2
Baltabek Kuandykov	54	2	2	3
Igor Ukrassin	54	2	5	2

Committees of the Board of Directors

Internal Audit Committee

Members of the Committee

As of December 31, 2018, the Internal Audit Committee of the Board of Directors of Embamunaigas JSC consisted of four Members:

Name	Title
Zhannat Yertlessova	Chairman of the Internal Audit Committee
Igor Ukrassin	Member of the Internal Audit Committee
Baltabek Kuandykov	Member of the Internal Audit Committee
Rysty Tasmagambetova	Member of the Internal Audit Committee

Responsibilities of the Committee

The powers of the Internal Audit Committee of the Board of Directors of Embamunaigas JSC are described in the Regulation on the Internal Audit Committee. The Internal Audit Committee annually analyzes and evaluates the performance of the Committee and its members, including an analysis of the Committee's compliance with this Regulation and provides the information to the Board of Directors.

The Internal Audit Committee gives recommendations to the Board of Directors on the procedure for the Internal Audit Service, its competence, functions, as well as the size and conditions of remuneration and bonuses for employees of the Internal Audit Service; reviews internal audit reports; monitors the implementation of recommendations of the Internal Audit Service; monitors and controls the performance of internal audit functions and performs other functions.

The Internal Audit Committee of the Board of Directors holds meetings on a regular basis and as necessary.

Over the year, the Board of Directors considered, among other things, the following issues:

- ▶ Review of the 2017 Report of the Internal Audit Service of KazMunayGas EP JSC in respect of Embamunaigas JSC for 2017.
- ▶ Review of the 2017 Report on the Implementation of Recommendations of the Internal Audit Service of KazMunayGas EP JSC by Embamunaigas JSC.
- ▶ Review of the audited annual financial statements of Embamunaigas JSC for 2017.
- ▶ Preliminary approval of the financial statements for 2017.
- ▶ Preliminary approval of proposals on the procedure for the distribution of the Company's net income and the amount of dividend per one ordinary share of the Company following the results of 2017.
- ▶ Approval of functional KPI of Members of the Management Board of Embamunaigas JSC.
- ▶ Report on the Implementation of Recommendations of the Internal Audit Service.
- ▶ Approval of the Work Plan of the Internal Audit Service of KazMunayGas EP JSC in respect of Embamunaigas JSC.
- ▶ Approval of the Work Plan of the Internal Audit Committee of the Board of Directors of Embamunaigas JSC for the first six months of 2018.

Strategic Planning and Risk Management Committee

Members of the Committee

As of December 31, 2018, the Strategic Planning and Risk Management Committee of the Board of Directors of Embamunaigas JSC consisted of seven Members:

Name	Title
Igor Ukrassin	Chairman of the Strategic Planning and Risk Management Committee
Zhannat Yertlessova	Member of the Strategic Planning and Risk Management Committee
Aman Imandossov	Member of the Strategic Planning and Risk Management Committee
Bolatbek Uralov	Member of the Strategic Planning and Risk Management Committee
Laura Yeralina	Member of the Strategic Planning and Risk Management Committee
Bauyrzhan Balzhanov	Member of the Strategic Planning and Risk Management Committee
Abat Balabayev	Member of the Strategic Planning and Risk Management Committee

Responsibilities of the Committee

The powers of the Strategic Planning and Risk Management Committee of the Board of Directors of Embamunaigas JSC are described in the Regulation on the Strategic Planning and Risk Management Committee. The Committee annually analyzes and evaluates the performance of the Committee and its members, including an analysis of the Committee's compliance with this Regulation and provides the information to the Board of Directors.

The Strategic Planning and Risk Management Committee of the Board of Directors of Embamunaigas JSC performs the following functions: considers and approves strategic goals aimed at the development of the Company in the long term; analyzes the concepts, programs and plans for the strategic development of the Company and gives its recommendations to the Board of Directors based on the results of the relevant analysis; prepares recommendations to the Board of Directors on making large transactions; prepares recommendations to the Board of Directors on the management of the Company's assets, and performs other functions.

The competence of the Committee in accordance with the tasks entrusted to it includes consideration of issues related to the management of the Company's risks, such as consideration and approval of the Company's risk management strategy; consideration and coordination of the Risk Management Policy, as well as other internal documents regulating the Company's risk management activities; consideration and discussion of the key risks faced by the Company and the risk appetite (risk appetite statements) of the Company; consideration and approval of reports on monitoring the status of key risks and risk appetite (risk appetite statements) of the Company; analysis of investment projects as for the Company's risk portfolio management; monitoring of the effectiveness of the risk management system to achieve strategic goals, and other issues.

The Strategic Planning and Risk Management Committee of the Board of Directors holds meetings on a regular basis and as necessary.

Over the year, the Strategic Planning and Risk Management Committee of the Board of Directors considered, among other things, the following issues:

- ▶ 2017 Report on the Expected Performance of Key Performance Indicators of Embamunaigas JSC.
- ▶ Report on the Review of the Budget and Business Plan for 2019–2023.
- ▶ Report on the Implementation of the 2017 Key Risk Management Plan, including issues of concern and a list of key risks for 2018.
- ▶ Preliminary approval of proposals on the procedure for the distribution of the Company's net income and the amount of dividend per one ordinary share of the Company following the results of 2017.
- ▶ Approval of functional KPI for Members of the Management Board of Embamunaigas JSC.
- ▶ Approval of corporate and incentive KPI for management staff (Members of the Management Board) of Embamunaigas JSC for 2018.
- ▶ Approval of the Regulation on the Procedure and Conditions for the Payment of Remuneration Based on the Results of the Year for Members of the Management Board and Managers of Embamunaigas JSC EMG-PO-119-03 in a new edition.
- ▶ Guide to the Risk Management Process of Embamunaigas JSC EMG-RKV-103-01 (Revision 1).
- ▶ Risk Management Policy EMG-PK-103-01 (Revision 1) of Embamunaigas JSC.
- ▶ Regulation on the Formation and Application of KPI for Members of the Management Board and Managers of Embamunaigas JSC EMG-PO-119-02 (Revision 2)
- ▶ The Work Plan of the Committee for the first six months of 2018.

Production and Technical Committee

Members of the Committee

As of December 31, 2018, the Production and Technical Committee of the Board of Directors of Embamunaigas JSC consisted of six Members:

Name	Title
Baltabek Kuandykov	Chairman of the Production and Technical Committee
Aidos Kurmankulov	Member of the Production and Technical Committee
Marat Yeleussinov	Member of the Production and Technical Committee
Abat Kutzhanov	Member of the Production and Technical Committee
Shaikhan Mukhametrakhimov	Member of the Production and Technical Committee
Bauyrzhan Seitkazyev	Member of the Production and Technical Committee



Responsibilities of the Committee

The powers of the Production and Technical Committee of the Board of Directors of Embamunaigas JSC are described in the Regulation on the Production and Technical Committee. The Committee annually analyzes and evaluates the performance of the Committee and its members, including an analysis of the Committee's compliance with this Regulation and provides the information to the Board of Directors.

The Production and Technical Committee of the Board of Directors of Embamunaigas JSC reviews and prepares materials for approval of the annual work program, budget, procurement plan related to the Company's production activities, as well as any changes thereto; analyzes and controls data of the current state of the drilling plan, controls the implementation progress of new drilling methods, techniques, technologies; analyzes data on the development and implementation of plans for the effective development of the fields; analyzes reports on the implementation of the production plan, production operations, collection and transportation of well products, data on the quality control of work results and process indicators of wells; analyzes the introduction of new programs for the intensification of oil production and optimization of the system to maintain reservoir pressure, and performs other functions.

The Production and Technical Committee of the Board of Directors holds meetings on a regular basis and as necessary.

Over the year, the Board of Directors considered, among other things, the following issues:

- ▶ Approval of the adjustment of the 2018 Budget and 2018–2022 Business Plan of Embamunaigas JSC.
- ▶ Report on the Review of the Budget and Business Plan for 2019–2023.
- ▶ Smart Field Project.
- ▶ Report on the Company's Performance for 8 months of 2018 and expected results for 2018.
- ▶ Report on the Company's Occupational Safety and Environmental Protection for 8 months of 2018 and the expected results for 2018.
- ▶ Report on the Activities of the Internal Audit Service of KazMunayGas EP JSC in respect of Embamunaigas JSC.
- ▶ Preliminary approval of the financial statements for 2017.
- ▶ Preliminary approval of proposals on the procedure for the distribution of the Company's net income and the amount of dividend per one ordinary share of the Company following the results of 2017.
- ▶ Approval of functional KPI for Members of the Management Board of Embamunaigas JSC.
- ▶ Work Plan of the Committee for the first six months of 2018.

MANAGEMENT BOARD

Changes in the Management Board

By Resolution of the Board of Directors of Embamunaigas JSC No. 35 dated September 5, 2018, the number of Members of the Management Board was approved as seven (7) and Salimzhan Nakpayev was elected a Member of the Management Board.

Members of the Management Board as of December 31, 2018

Anuar Zhaksybekov

Chairman of the Management Board of Embamunaigas JSC



He started his career as an operator for oil and gas production at the Baichunas Oil and Gas Production Office ("OGPO") of Dossorneft of Kazakhoil-Emba OJSC. After his military service, he continued working as an operator at of the oil and gas production workshop at the Karsak Field.

In 1993, he graduated from the Patrice Lumumba Peoples' Friendship University (Moscow), with a degree in Geology and Exploration of Oil and Gas Fields.

After graduation he was a district geologist at the Atyrau Drilling Operations Department, a leading geologist, a deputy head of the oil recovery and well overhaul section in Makat District of Kazakhoil Emba OJSC.

In 1999, he was appointed Chief Geologist at Makatneft OGPO of Kazakhoil Emba OJSC.

From 2000 to 2004, he worked at Kazakhoil NC JSC as Chief Engineer of the Department of Production Management, Manager, Deputy Director of the Geology and Development Department, Director of the Geology Department.

From 2004 to 2007, he was the Director the Department of Geology and Geophysics of the Geological and Technological Service, Director of the Department of Geology, Geophysics and Reservoirs of the Exploration and Production Unit of KazMunayGas NC.

In 2007–2013, he was an Exploration Manager from KazMunayGas NC JSC at the founded N Operating Company LLP, Chairman of the Technical Subcommittee for Geological Exploration.

In February 2013, he was appointed Deputy Director General for Geology and Development of KMG EP, Chairman of the Technical Committee for Exploration, Chairman of the Supervisory Board of Exploration Assets of KMG EP. He supervised joint ventures with the participation of KMG EP, such as Ural Oil and Gas JV, interest with Chinese FIOC and Hungarian MOL, Karpovsky North Joint Venture.

In 2013–2015, he was Deputy Director General for Prospective Projects and Operating Activities of Kashagan B.V. PCLLB.

Since September 2015, he has been Deputy Director General for New Projects and Technologies at Embamunaigas JSC.

Since April 2017, he has been Chairman of the Management Board of Embamunaigas JSC.

He was awarded the Certificate of Merit of the USSR Ministry of Petroleum Industry; Certificate of Merit of KazMunayGas NC JSC; Certificate of Merit of Samruk-Kazyna NWF JSC; Letter of Acknowledgment of the Committee of Geology and Mineral Protection of MEMR RK; Badge of Honor of the Ministry of Energy and Mineral Resources of the Republic of Kazakhstan *The 90th Anniversary of Makat*; Badge of Honor of the Ministry of Oil and Gas of the Republic of Kazakhstan *The 100th Anniversary of the Dossor Field* (2011); *The 50th Anniversary of Prorva*; a diploma and a badge *Honored Explorer of the Republic of Kazakhstan* of the Ministry of Industry and New Technologies of the Republic of Kazakhstan (2012); the medal *For the Contribution to the Development of the Oil and Gas Industry of the Republic of Kazakhstan* of the Ministry of Oil and Gas of the Republic of Kazakhstan (2014); a commemorative medal of the Ministry of Energy of the Republic of Kazakhstan *The 95th Anniversary of Embamunaigas JSC* (2017), Qurmet Order (2017).

Aibolat Gabdullin

Deputy Chairman for Production of the Management Board of Embamunaigas JSC, Member of the Management Board

In 1978, he graduated from the V. Lenin Kazakh Polytechnic Institute with major in Technology and Complex Mechanization of Oil and Gas Field Development. In 1984, he graduated from the M. Azizbekov Azerbaijan Institute of Petroleum and Chemistry as Industrial Production Organizer.

He started his career in 1978 as an oil treatment and pumping operator of Prorvaneft OGPO, then he worked as a foreman, site supervisor, head of Central Dispatch Office, chief engineer, head of department. Prior to his appointment to the position of Deputy Director General for Production of Embamunaigas JSC, he worked as Deputy Director for Production at Embamunaigas PB of KazMunayGas Exploration Production JSC. In September 2012, he was appointed Deputy Director General for Production of Embamunaigas JSC.

He was awarded with the Qurmet Order dedicated to the 100th anniversary of Kazakh oil (1999); Certificate of Honor of the Ministry of Energy and Mineral Resources (2003); Badge of Honor *100th Anniversary of Development of the Dossor Field* (2011); a Certificate of Merit of KazMunayGas EP JSC dedicated to the 20th anniversary of independence of Kazakhstan (2011); Honorary Citizen of Zhylyoi District (2011); Certificate of Merit of KazMunayGas EP JSC (2012); Lapel Pin *Prorva mýnainyna 50 jyl* (2013); the medal of *Major General of Aviation Talgat Bigeldinov* (2015); the commemorative medal *The 20th anniversary of Maslikhat of Kazakhstan* (2015); the Medal of the Ministry of Energy of the Republic of Kazakhstan *For the Contribution to the Development of the Oil and Gas Industry* (2015); a recognition letter from the Chairman of the Nur Otan Party N. Nazarbayev (2016); KAZENERGY Medal (2016); Certificate of Merit from KazMunayGas NC JSC (2016); the medal *Qazaqstan Respýblikasynyń táýelsizdigine 25 jyl* (2016); commemorative medal of the Ministry of Energy of the Republic of Kazakhstan *The 95th Anniversary of Embamunaigas JSC* (2017).





Rysty Tasmagambetova

Deputy Chairman for Economy and Finance of the Management Board of Embamunaigas JSC, Member of the Management Board

She has two college degrees – in 1986 she graduated from the A. Pushkin Ural Pedagogical Institute with a major in History and Pedagogics; in 2002, Atyrau University of Oil and Gas with a major in Enterprise Economics and Management. In 2014, she was awarded with the degree of Master of Business Administration (MBA: Management/International Business) by the Russian Presidential Academy of National Economy and Public Administration.

Over the years of work, she held various management positions: Director of the Representative Office of EITEK Research and Production Company (Moscow), Director of Atyrau Oil Corporation LLP, Financial Director of Caspian Commercial Center LTD LLP, Deputy Director General for Economy and Finance of KMG-Zhaiyk LLP, Deputy Director for Economy and Finance of Embamunaigas PB, KazMunayGas Exploration Production JSC. Since October 2012, she has held the position of Deputy Director General for Economy and Finance at Embamunaigas JSC.

She was awarded with a Commemorative Badge The 100th Anniversary of Development of the Dossor Field (2011), a Certificate of Merit of KazMunayGas EP JSC (2012), a Lapel Pin *Prorva mynalyyna 50 jyl* (2013), a Certificate of Merit of Samruk-Kazyna NWF JSC (2014), a Certificate of Merit of KazMunayGas EP JSC (2014), a Certificate of Merit of KAZENERGY (2015), the Anniversary Medal of the Ministry of Energy of Kazakhstan The 95th Anniversary of Embamunaigas JSC (2017).



Kairat Adilbekov

Deputy Chairman for Exploration of the Management Board of Embamunaigas JSC, Member of the Management Board

He graduated from the I. Gubkin Moscow Institute of Petrochemical and Gas Industry with a major in Geology and Exploration of Oil and Gas Fields. After graduation from the Institute, he started his career as a well testing operator at the Ural Oil and Gas Exploration Expedition of Uralskneftegazgeologia PGA.

In 1985–1993, he worked as a Senior Geologist, a Leading Geologist, Head of the Oil and Gas Reserves Estimation Party, a Chief Geologist of the Research Methodical Expedition, and Head of the Oil Extraction Operations Department at Uralskneftegazgeologia PGA. He participated in the exploration and estimation of hydrocarbon reserves of the Karachaganak oil and gas condensate field (in 1985 and 1988) and the Teplov-Tokarev Group of Fields (in 1991) and defense thereof at the State Reserves Commission of the USSR. From 1993 to 2001, he held various management positions in commercial and consulting companies. From 2001 to 2005, he was the Coordinator of the Reserve Reestimation Project, Head of the Field Development Department at Tengizchevroil LLP. He coordinated preparation, coordination and approval of the reserves reestimation reports and process workflows for the development of the Tengiz (in 2002) and Korolev (in 2004) oil fields. From 2005 to 2014, he held management positions in the oil and oilfield service companies Kozhan LLP (Branch Manager, Deputy Director General for Development – Chief Geologist), Kazakhstan Branch of Jupiter Energy Pte. Ltd. (Technical Director) and Azatpetrotrans LLP (Director). Since August 2014, he has been Director of the Department of Geology and Geophysics of Embamunaigas JSC. Since September 2015, he has been Deputy Director General for Geological Exploration of Embamunaigas JSC. He is an independent expert of the State Commission on Mineral Reserves of the Republic of Kazakhstan (SCR RK).

He was awarded with the badge *Excellent Subsoil Explorer of the Republic of Kazakhstan*; a Certificate of Merit *Ural Oil and Gas Exploration Expedition* (1986); a Certificate of Merit

of the Central Committee of the Leninist Young Communist League of Kazakhstan (1987); a Certificate of Merit dedicated to the 70th anniversary of Great October Revolution *Ural Oil and Gas Exploration Expedition* (1987); a Certificate of Merit dedicated to the Geologist Day *Ural Oil and Gas Exploration Expedition* (1989); a commemorative medal of the Ministry of Energy of the Republic of Kazakhstan *The 95th Anniversary of Embamunaigas JSC* (2017), Certificate of Merit from KazMunayGas EP JSC (2017).

Bauyrzhan Balzhanov

Deputy Chairman for Business Development of the Management Board of Embamunaigas JSC, Member of the Management Board

He graduated from the Oil and Gas Institute of the Atyrau University with a major in Oil and Gas Geology. In 2010, he received a Master of Business Administration (MBA) (Management).

After graduation from the university in 1996, he started his career as a geological engineer at Gyural JV. In 1999–2000, he was a process engineer, shift chief of the Production Operations Management Department (CDO) of Kazakhoil-Emba OJSC. From 2000 to 2001, he was a Leading Engineer of the Department for the Development of New Fields of Kazakhoil-Emba OJSC. In 2001, he was appointed the Head of the Oil and Oil Product Balance Sector of Embamunaigas OJSC. From 2004 to 2009, he was the Head of the Operational Accounting and Control Division of the Treasury Department of KazMunayGas EP JSC. From 2009 to 2012, he was Deputy Director of the Treasury Department of KazMunayGas EP JSC. In 2012, he was Deputy Director of the Department for Oil and Oil Product Export of KazMunayGas EP. In 2012–2013, he was Director of Logistics Groups at The Rompetrol Group Corporate Center SRL. From 2013 to 2015, he was Commercial Director of KMG – Kashagan B.V. Since September 2015, he has been Deputy Director General for Commerce of Embamunaigas JSC.

He was awarded with a commemorative badge *Maqat munaı ken ornyna 90 jyl* (2005), a Certificate of Merit of RD KazMunayGas JSC (2009), a commemorative badge *Dossormunayı ken ornyna 100 jyl* (2011), a commemorative medal of the Ministry of Energy of the Republic of Kazakhstan *The 95th Anniversary of Embamunaigas JSC* (2017), Certificate of Merit from KazMunayGas NC JSC (2017).



Salimzhan Nakpayev

Deputy Chairman for General Affairs of the Management Board of Embamunaigas JSC, Member of the Management Board

He graduated from the Almaty Institute of National Economy (1991) as an Economist, and from the Atyrau Institute of Oil and Gas (2004) as a Mining Engineer.

He started his career as a process compressor operator in the Makat Line Production Department (1983). He was a specialist, senior economist at the Planning and Economic Commission of the Makat Regional Executive Committee. In 1992–1995, he was Chairman of the Maksat small enterprise. Over the years, he held the positions of Akim of Makat, Zhylyoi Districts, Head of the Atyrau Region Akim Office, Atyrau Akim, Community Relations Manager of Agip KCO, Deputy Akim of Atyrau Region.

Since July 2018, he has held the position of Deputy Chairman for General Affairs of the Management Board of Embamunaigas JSC.

He was awarded with the commemorative medal *The 10th Anniversary of Independence of the Republic of Kazakhstan* (2001); *The 10th Anniversary of the Constitution of Kazakhstan* (2005); *Qurmet Order* (2005); the commemorative medal *The 10th Anniversary of Astana* (2008).





Ruslan Makashev

Legal Department Director of Embamunaigas JSC, Member of the Management Board

He graduated from the Kazakh State Law Academy as Lawyer (2000), Kazakh Public University as Economist (2007), was awarded with the degree of the Executive Master of Business Administration (KIMEP University, 2016).

He started his career as a lawyer in the Road Repair and Construction Department. He was a legal adviser at Kazakhoil-Emba OJSC. Over the years, he was a Senior Lawyer, Deputy Director of departments of KazMunayGas EP JSC. He held the positions of Legal Department Director, Vice President of Karazhanbasmunai JSC. Since December 2017, he has held the position of Legal Department Director at Embamunaigas JSC.

He was awarded with a Certificate of Merit of KazMunayGas EP JSC (2009), Commemorative Badge *The 100th Anniversary of the Dossor Oil Field* (2011); a commemorative medal *The 20th Anniversary of Independence of the Republic of Kazakhstan* (2011); has a Recognition Letter from Karazhanbasmunai JSC (2017); a Recognition Letter from KazMunayGas EP JSC (2017).

Performance Report of the Management Board

The powers of the Chairman of the Management Board of the Company are described in Section 13 of the Company's Articles of Association.

The Management Board is the executive body and guides the daily operations of the Company. In 2018, 28 meetings of the Management Board were held on a regular basis and as required.

In 2018, the Management Board considered, inter alia, the following most important issues related to the Company's operating activities:

- ▶ Making transactions with Embamunaigas JSC's interest of up to 500M KZT.
- ▶ Approval of the Production Program of Embamunaigas JSC.
- ▶ Allocation of funds for student training (Kazakh specialists).
- ▶ Arrangement of dual training.
- ▶ Approval of the list of priority GWS procurement for 2019.
- ▶ Provision of social, charitable assistance to socially vulnerable groups of the population.
- ▶ Payment of the quarter bonus to the management staff in 2018 (except for Members of the Management Board and Corporate Secretary) of Embamunaigas JSC.
- ▶ Approval of staffing tables for employees of production structural units of Embamunaigas JSC.
- ▶ Approval of KPI for managers of structural units of the management staff and production structural units of Embamunaigas JSC.
- ▶ Payment of financial aid to retired employees of Embamunaigas JSC.

Employment Contracts of Members of the Management Board

All Members of the Management Board have entered into employment contracts with the Company, under which they are generally provided with accident insurance during travels and reimbursement of expenses during business trips in accordance with the internal rules of the Company.

Save as aforesaid, any other employment contracts are not made and are not expected to be made between the Company and the Members of the Management Board.

Liability for the Report Reliability

The Company's officers are liable for the reliability of the data in the Company's Annual Report.

INTERNAL AUDIT

The Audit and Assets Department is tasked with providing the Company's management with independent and unbiased information, advising on control and corporate governance, as well as submitting analytical reports and recommendations on how to improve existing procedures.

A&AD reports to the Chairman of the Management Board, who sets strategic directions and coordinates the work that determines the A&AD working procedures. A&AD makes up an audit work plan for the year to be approved by the Chairman of the Company's Management Board.

In accordance with the approved work plan and tasks of the Company's management, the Department audits any functions, operations and all types of the Company's activities and, in close cooperation with managers at all levels, contributes to the improvement of control and corporate governance systems and solves the following tasks:

- ▶ assessing compliance of existing procedures and operations performed by the Company's SU/PSU with the laws and internal documents;
- ▶ monitoring targeted expenditure of funds;
- ▶ evaluating the means and measures to ensure proper protection of the Company's assets; and
- ▶ verifying compliance of characteristics of the Company's assets with their classifiers.

Audit items may include:

- ▶ Locations – production structural units;
- ▶ Projects – contracts, subcontracts, programs, types of products, etc.;
- ▶ The Company's assets – physical assets, accounts, cash in bank accounts, information, accounts receivable, etc.; and
- ▶ Operations – functions, business processes, etc.

The scope of the audit is determined by the A&AD Director and is taken into account when drawing up the audit program.

In 2018, four audits were conducted; all audits were conducted in a timely manner, 23 recommendations were given, all recommendations were implemented in a timely manner.

RISK MANAGEMENT

The Company's Risk Management Strategy is aimed at ensuring the strategic and operational sustainability of the business, which is achieved through timely risk identification and assessment and proactive risk management, taking into account the Company's risk appetite, ensuring communication and coordination of employees at various levels.

The Company's Risk Management System is a set of interrelated elements combined into a single process, where the Board of Directors, management and employees, each at their own level, participate in identifying potential events that may affect the Company's business.

Risk management is an integral part of the Company's management system.

The risk management process is directly interconnected with and integrated into the processes of strategic planning, production and budget planning, investment activities and incentive system.

The risk management process in the Company is constant, cyclical (continuous), multidirectional and consists of the following components:

- ▶ goal setting;
- ▶ risk identification;
- ▶ risk assessment;
- ▶ risk control and management;
- ▶ monitoring; and
- ▶ reporting.

The Company's Risk Management System operates with regard to the risk portfolio of the oil and gas production offices (OGPO) and other subsidiary offices of Embamunaigas JSC and is integrated into the Risk Management System of KazMunayGas EP JSC.

In 2018, during the works on risk identification, a risk register was compiled with an indication of the causes of risks and consequences of their realisation; in addition, a list of the most significant risks was identified, which includes both production and non-production risks. The Board of Directors reviewed and approved a list of 12 key risks, as well as an action plan for their management.

In order to ensure proper risk management, risks are insured in accordance with the Company's Insurance Coverage Policy. In addition to the mandatory types of insurance in accordance with the best international practices, the Company provides the insurance against property risks, risks of wells getting out of control as well as general third-party liability insurance.

In addition, since 2018, in line with the implementation of the project management system in the Company, a Project Committee has been established to review the company's project portfolio. One of the main prerogatives of project management is risk management of the entire portfolio of projects, which allows identifying events that may affect the project.

Key Groups of Risks

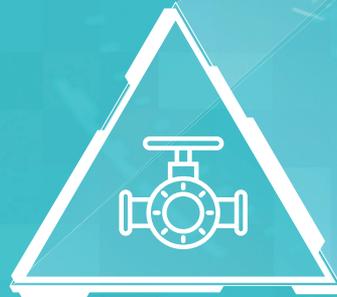
- ▶ Operational risks include risks associated with the Company's operating activities and business processes, which depend on internal factors, such as personnel, financial assets, production technologies, management technologies, information technologies and fixed assets.
- ▶ Business risks are risks associated with the business environment where the Company operates. The business environment is determined by external factors, such as the state, competitors, contractors, investors, owners, and the media. External factors can also include changes in the economic environment, availability and accessibility of monetary resources, political factors, changes in the legal environment, changes in the socio-cultural environment, and process factors. Business risks are less manageable and most material ones, and the Company takes reasonable steps to minimize such risks.
- ▶ Project risks are uncertain events or conditions, which, if any of them occurs, have an impact (positive or negative) on at least one of the project objectives, such as schedule, cost, scope or quality.



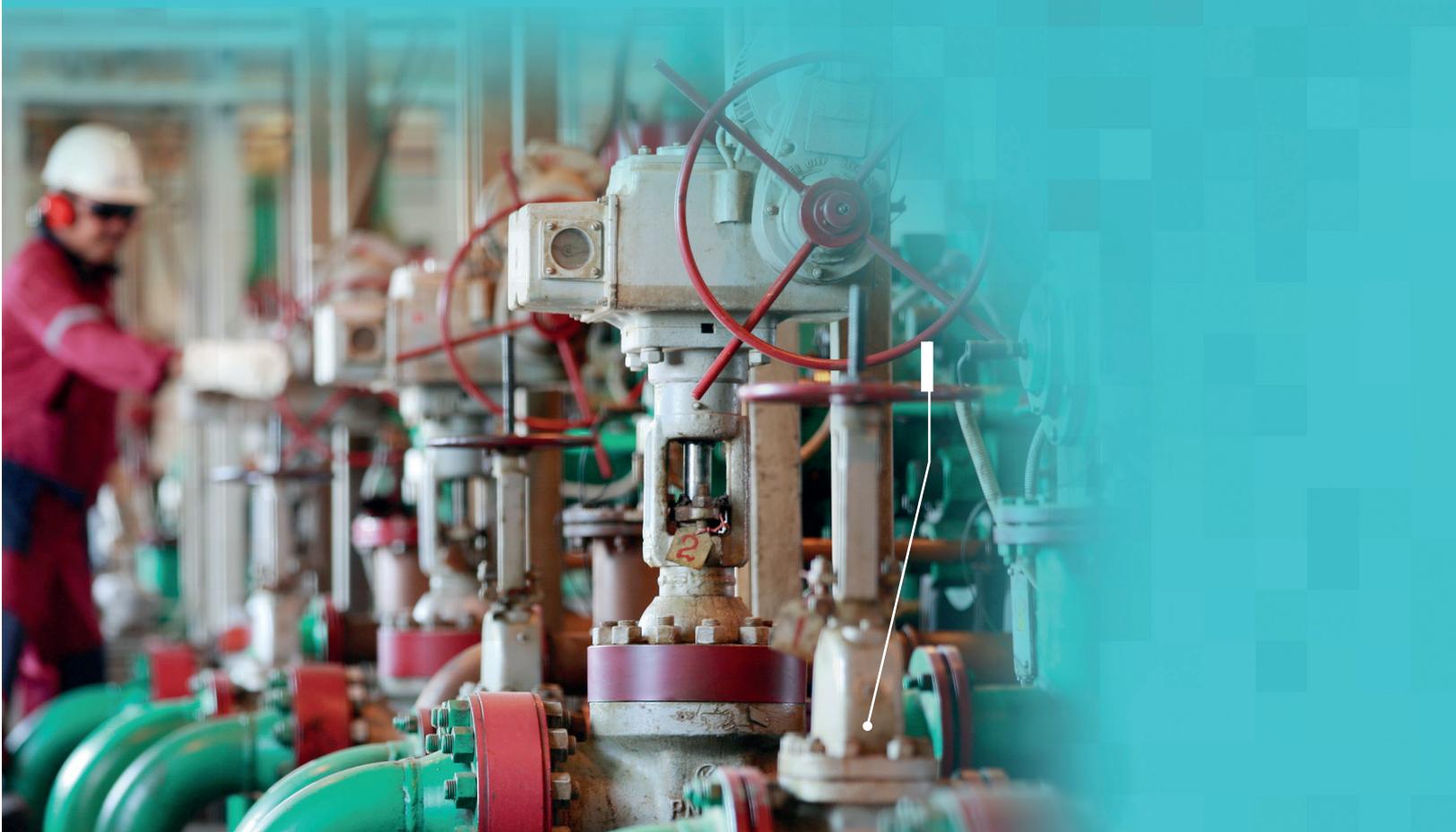
DIGITAL EMBARKING

OIL PUMPING MONITORING

The Well Product Pumping Monitoring Module introduced to the Smart Field system allows specialists to obtain online information on crude oil delivery from metering stations.



Oil Transportation
and Delivery



05



**SUSTAINABLE
DEVELOPMENT
REPORT**

People are a key asset of the Company. Embamunaigas JSC is making continuous efforts to create working conditions aimed at ensuring the safety of employees, as well as contributing to their professional growth.

HR POLICY

As part of the HR management and remuneration functional strategy adopted as part of the Development Concept until 2027 of Embamunaigas JSC approved by the Board of Directors, the main goal of the HR Department is to provide the Company with a sufficient number of qualified personnel motivated to achieve the strategic goals through high-quality training and development of employees, search for and implementation of the cutting-edge advanced management tools and methods, strengthening monitoring of executive discipline and ensuring social support for workers.

Taking into account the requirements and prospects of the Company's strategic development, the HR Management and Remuneration Department is constantly working to develop the labor management system, remuneration forms and systems, material and moral incentives within the Company and its production structural units. Measures are taken to improve labor regulation based on the use of intersectoral and sectoral labor standards. Work is underway to improve the performance, including through maintaining the optimal number of staff.

As of January 1, 2019, the actual number of the Company was 4,942 people. Staff turnover in 2018 was 8.19%.

In order to optimize expenses, the Company is working to reduce and outsource full-time non-core low-skilled jobs. For the period from 2014 to 2018, 372 jobs were outsourced.

Staff Structure



Staff Structure as of January 1, 2019

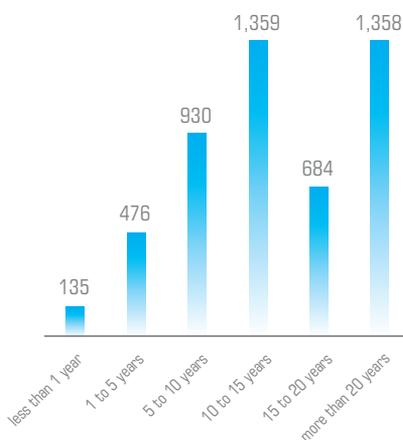
Number of staff	Actual number	including	
		men	women
Total	4,942	4,061	881
Administrative and management staff	300	188	112
Managers	103	82	21
Specialists	197	106	91
Production staff	4,642	3,873	769
Managers	537	498	39
Specialists	626	347	279
Workers	3,479	3,028	451

Embamunaigas implements a program of early retirement from the age of 58 for employees, who have worked most of their life under the harsh conditions of the oil industry and have health issues. Since the beginning of the program implementation in 2014, 237 employees have retired before the retirement age.

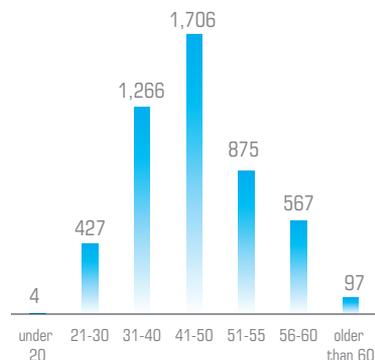
Staff Turnover, %



Length of Service, ppl



Age Categories



Dynasties

Embamunaigas is a company with a long history, established strong traditions and continuity of generations. Labor dynasties are the basis of the Company's stable long-term development. With the labor dynasties, the Company maintains the continuity of generations, supports the family job succession and helps exchanging invaluable experiences; respect for work and pride of job are brought up in the younger generation.

Today, Embamunaigas employs members of more than twenty family dynasties, with three or more generations, who have connected their lives with the difficult job of an oil worker. The total length of service of some of them exceeds 200 years. They are the dynasties of the Zhylykshiyevs, the Kurmankulovs, the Torekhanovs, the Saliyevs, the Kulbaliyevs, the Bekmurziyevs, the Ondashev, the Beshimovs, the Korbebayevs, the Ualiyevs, the Bissenbayevs, the Zhakashev, the Aidabekovs, the Raimbergenovs, the Bazhbenovs, the Kanatbayevs, the Zhanaissov, the Mangistauovs-Yerzhangaliyevs, the Balgimbayevs and the Balzhanovs.

The Company's stability is based on the labor dynasties.

Personnel Training and Development

The training and development of Embamunaigas personnel is aimed of satisfying the Company's needs for highly qualified management, administrative and production personnel through the continuous development of the employees' potential, retention of highly qualified employees, formation of a system of acquisition and improvement of knowledge and skills of employees and their effective use in regular activities.

The Company provides the following types of training:

- 1) technical disciplines;
- 2) financial and economic disciplines;
- 3) language learning;
- 4) general disciplines;
- 5) master's, specialized and modular programs;
- 6) techniques and skills used in the workplace;
- 7) safety, health and environment; and
- 8) compulsory compliance training.

The following training methods are mainly used:

- 1) training in short-term courses, including corporate training;
- 2) on-the-job training;
- 3) secondment to different structural units of the Company or different companies;

DYNASTIES OF OIL WORKERS OF EMBAMUNAIGAS JSC

AMS of Embamunaigas JSC

The Zhilkishiyevs

Dynasty **1913**



4 generations
length of service
more than **208** years

The Zhanaisovs

Dynasty **1947**



3 generations
length of service
more than **83** years

The Yerzhangaliyevs

Dynasty **1925**



3 generations
length of service
more than **92** years

The Kanatbayevs

Dynasty **1911**



4 generations
length of service
more than **278** years

Zylyoimunaigas OGPO

The Ondashevs

Dynasty **1933**



4 generations
length of service
more than **182** years

The Beshimovs

Dynasty **1926**



3 generations
length of service
more than **87** years

The Korpebayevs

Dynasty **1963**



3 generations
length of service
more than **26** years

The Ualiyevs

Dynasty **1939**



3 generations
length of service
more than **125** years

The Bissenbayevs

Dynasty **1920**



3 generations
length of service
more than **94** years

The Kulbaliyevs

Dynasty **1928**



4 generations
length of service
more than **148** years

Dossormunaigas OGPO

The Kurmankulovs

Dynasty **1943**



length of service more than **176** years

The Bazhenovs

Dynasty **1914**



length of service more than **139** years

The Turekhanovs

Dynasty **1931**



length of service more than **144** years

The Saliyevs

Dynasty **1939**



length of service more than **177** years

The Bekmurziyevs

Dynasty **1930**



length of service more than **97** years

Kainarmunaigas OGPO

The Koshmaganbetovs

Dynasty **1953**



length of service more than **223** years

The Zhakashevs

Dynasty **1947**



length of service more than **120** years

The Aidarbekovs

Dynasty **1946**



length of service more than **85** years

The Raimbergenovs

Dynasty **1942**



length of service more than **84** years

- 4) distant learning using the Internet and/or other types of communication; and
- 5) participation in conferences, round tables, forums, workshops, congresses, exhibitions, which contributes to acquaintance with the latest achievements and technologies, new approaches and ideas, successful experiences and developments of other companies along with gaining experiences and broadening horizons, and establishing partner relations beneficial for the Company.

In 2018, 4,596 employees passed compulsory safety training, 300 employees passed well-kill safety training. 1,217 people were trained at seminars, including MBA, business seminars, technical seminars, seminars for financiers, etc. 971 employees passed training in blue-collar jobs.

Modular Training Arrangement

In order to train and develop middle managers, modular programs were developed, which included training in planning and improving production processes, management skills training. After completion of the program, the students presented their projects to improve production processes.

Over the period from 2015 to 2017, more than 250 employees from among the heads of the main workshops, site foremen, geologists, and safety engineers took part in the modular training programs. In 2018, the modular programs were developed by the Kazakh-British Technical University in the following areas: Geology, Development, Well Overhaul and Servicing, and Geophysics. In 2018, KBTU conducted training in a corporate and open format on four topics, with 38 employees attending.

The internal training procedures are constantly analyzed and updated for the purpose of improvement.

Employment Pool Generation and Development

The employment pool generation for the replacement of heads of departments is of current importance for Embamunaigas. The purpose of the employment pool generation is to minimize the risks associated with the recruitment and placement of personnel to fill positions within the Company, improve the quality of employees, improve management efficiency based on targeted selection and training of the most promising managers and specialists.

The established system of employment pool and career growth allows:

- ▶ ensuring the reliability of the entire management system, minimizing the elements of chance and subjectivity in the selection and placement of personnel in senior and middle management positions;
- ▶ identifying promising employees who are ready to develop the Company in accordance with the strategy, improving employee's motivation, retaining employees by providing opportunities for career growth, enhancing the prospects for self-fulfillment; and
- ▶ achieving the optimal placement and rotation of managers and specialists, reducing personnel risks in the appointment of managers (an on-boarding period).

Following the results of a comprehensive assessment, 87 employees were included in the employment pool with 62 employees of planned pool and 25 employees of talent pool. From 2015 to 2018, the employment pool employees passed theoretical and practical training according to individual development plans.

Appointments to key positions:

- ▶ planned pool – 30 employees,
- ▶ talent pool – 8 employees.

In 2018, the employment pool was reevaluated, 8 out of 20 employees of the planned pool were selected, and a new employment pool was generated:

- ▶ planned pool for the positions of managing directors, heads and chief engineers of OGPO – 6 employees; and
- ▶ talent pool – 13 employees.

Employee Engagement

The Company seeks to maximize the personnel engagement by incentivizing good performance through fair remuneration for the results of work. Work is being performed to create and continuously develop an effective incentive system and improve executive discipline of employees in order to attract, retain and motivate employees, whose qualifications and performance will ensure the successful fulfillment of the Company's mission and achievement of business goals at minimal cost.

The main tasks in incentivizing and executive discipline are as follows:

- ▶ ensuring a unified approach to the remuneration of all employees of the Company and compliance with the achieved performance and fair remuneration;
- ▶ developing a system of awards and incentives, including for the creation and introduction of new technologies, implementation of development projects, solution of key financial, economic, social, employment, and other issues;
- ▶ strengthening the quality control of the performance of the tasks assigned to employees;
- ▶ raising awareness of employees about the developed and implemented guidance documents within the Company; and
- ▶ automating the process of setting tasks for the employee with an indication of priority and deadlines, strict monitoring of implementation.

The remuneration system is being improved, including through the introduction of a remuneration system based on the assessment of the fulfillment of key performance indicators.

Arranging and Conducting 2018 Best Performer Contest

The first round of the contest was held in each production structural unit (PSU) of Embamunaigas JSC in 13 main jobs; the second round was held between the winners of the first round on the basis of Zhaiykmunaigas OGP; the third round was held among the winners of the Group of Companies of KazMunayGas NC JSC. Employees of Embamunaigas JSC participated in the contest for 10 jobs.

Employee Award and Incentives

In 2018, 334 employees were awarded and rewarded for their labor merits, including recognition letters and certificates of Embamunaigas JSC, certificates and commemorative badges of KazMunayGas NC JSC and KazMunayGas EP JSC, medals and certificates of KAZENERGY, etc.

SOCIAL PROJECTS

Kazakh Specialists Training

The Company allocates significant funds to social projects in terms of training Kazakh specialists under contractual obligations. In particular, a dual training project and a scholarship program are being implemented.

As part of the dual training project, over the past four years, 93 students of the Atyrau University of Oil and Gas, the APEC Petrotechnic Higher College, and the Ufa State Oil University have had practical training in the Company's production units. In addition to a diploma, they received employment record books with a record of work.

Following the results of training in the dual program:

- ▶ Well Testing Operator qualification was assigned to 89 trainees,
- ▶ Process Plant Operator qualification was assigned to 4 trainees,
- ▶ Dehydrator and Desalter Operator second qualification was assigned to 19 trainees from the 4-year AUOG students,
- ▶ Operator in Oil and Gas Production second qualification was assigned to 35 trainees from the 4-year AUOG students, and
- ▶ 37 trainees were employed.

To date, 43 students are engaged in dual training: 19 AUOG students, 4 USOU students, 20 APEC students.

As part of the scholarship program, the Company fulfilled its obligations to pay for education of two students of APEC Petrotechnic Technical School from socially vulnerable groups of the population and children of Embamunaigas JSC employees, pay monthly scholarships in the amount of the minimum wage fixed by the laws for the respective year, arrange the practical training, and one student was employed by the Company.

Under the contractual obligations for subsoil use, Embamunaigas JSC paid for the studies of 49 students.

191 students of domestic and foreign colleges and universities completed practical training at the Company's fields.



Social Support for Employees

The Company provides its employees with a high level of social security. The collective agreement provides for guarantees and benefits, allowances and financial aid. Much attention is paid to solving the urgent problems of each employee: these are social allowances, such as financial aid for health improvement for an annual leave, allowances associated with pregnancy and childbirth, monthly allowance to employees who are on parental leave until a child is 1.5 years old, a lump-sum allowance associated with the death of an employee for a funeral arrangement, a lump-sum allowance to the family of an employee who died in an occupational accident, payment for the vacation of the employees' children, the costs of health resort treatment covered for employees, temporary disability allowance, arrangement of cultural and sports events, catering for employees, etc.

The Company also provides social guarantees for voluntary health insurance for a disease. There is a financial aid provided in accordance with internal regulatory documents for treatment and payment for medical operations, in the event that the cost of treatment exceeds the limit of the insurance program.

In 2018, social allowances to meet the conditions of the Collective Agreement amounted to 233.9 mln KZT. 1,545 people got resort treatment for a total of 338.4 mln KZT; 371.5 mln KZT were allocated for vacation of 2,057 children of employees. In 2018, 606.1 mln KZT were allocated to pay financial aid to pensioners.

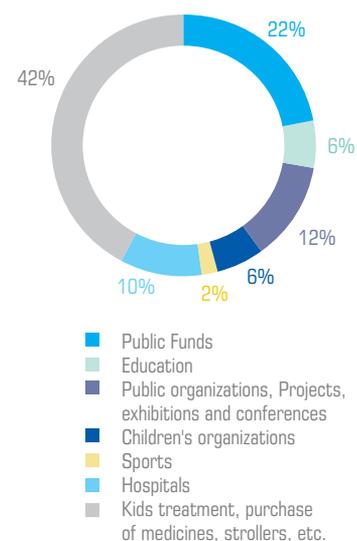
SOCIAL POLICIES

This year, Embamunaigas JSC celebrated the 50th anniversary of the S. Balgimbayev Field. As part of the anniversary celebration, a cafeteria for 150 seats was commissioned and cultural events were arranged for the residents of the area.

In 2018, an official opening ceremony for a new cafeteria for 50 seats was held at the Kissymbay Field, Zhylyoymunaigas OGPO; an official opening ceremony for a new dormitory commissioned for 100 people at the Kenbay Field, Kainarmunaigas OGPO took place.

On the New Year Eve, the traditional charity fair *A Gift from Santa Claus* was held. The goal of the fair is to buy the New Year gifts for children from socially vulnerable groups of the population on the money earned at the fair. Embamunaigas JSC organized a series of traditional charitable New Year parties for children from socially vulnerable groups of the population. More than 600 children from regional specialized and medical institutions took part in the New Year parties. There was a charity New Year party for 200 children with disabilities in the Kurmangazy Palace of Culture.

As part of social policy implementation, the Company provides sponsorship and charitable assistance to sports organizations, disabled persons, low-income pensioners and citizens. In total, in 2018, Embamunaigas JSC provided sponsorship and charitable assistance for more than 216 mln KZT, of which 48.4 mln KZT for the implementation of the statutory goals of public funds, 21.9 mln KZT for medical institutions of Atyrau Region, 12 mln KZT for orphanages, 3.7 mln KZT for sports development, 90.4 mln KZT for the treatment of children.



OCCUPATIONAL HEALTH AND SAFETY, FIRE SAFETY AND ENVIRONMENTAL POLICIES

The life and health of people is our absolute value.

The Company has been producing oil since as far back as 1899. Old fields have been in development for over 50 years, since new rich deposits were discovered only in the 1970–80s. More than two thirds of the fields of Embamunaigas JSC are at a late stage of development; therefore, the Company pays special attention to environmental protection, occupational health and safety.

As a national oil and gas company, Embamunaigas JSC is fully aware of its full responsibility to employees and society for creating and maintaining a safe working environment at all stages of production activities and minimizing the adverse environmental impact.

While delivering the full production cycle from the hydrocarbon exploration and production, transportation and processing to the provision of specialized services, the Company seeks to meet the highest standards of occupational safety and is engaged in continuous improvement of the management system of occupational health and safety, fire safety and environmental protection as a key production control element.

The main objectives of the Company in the area of occupational safety and the environmental protection are as follows:

- ▶ Zero accidents, incidents or spills; and
- ▶ Minimum adverse environmental impact.

The main management principles are as follows:

- ▶ Regulatory compliance
- ▶ Openness
- ▶ Continuous improvement
- ▶ Occupational health and safety
- ▶ Environmental protection
- ▶ Energy saving and energy efficiency.

Occupational Safety

Occupational safety is one of the priorities for the Company's management. Big work has been done recently to ensure the safety of workers, primarily in the area of improving the working conditions, such as building amenities, cafeterias, office facilities, operator buildings for group units, etc. The Company's management pays great attention to the quality of special clothes, special shoes and personal protective equipment purchased.

Production activities of the Company's structural units are associated with increased danger, and Embamunaigas JSC is actively working to reduce the risks of life-threatening accidents and other risks to personnel.

In 2018, the total expenditure on activities for occupational health and safety amounted to 1.3 billion KZT.

In order to encourage engagement in occupational safety, a review competition is held on an annual basis for the best arrangement of work, improvement of the esthetics of production among the workshops and sections of the primary and secondary production.

The Foreman Days are held on a quarterly basis at the production and structural units in order to provide methodological assistance to the foremen in the arrangement of work on occupational safety, with lectures and seminars organized, specialists of departments, specialized organizations for occupational health and safety (State Labour Inspection Office of Atyrau Region, Emergency Department of Atyrau Region, Medicare-Zhaiyk LLP, Semser-Ort Sindirushi LLP) invited as lecturers. These days, among the foremen and mechanics of production workshops and sites, competitions are held for the best arrangement of work on occupational health and safety; the winners are awarded with cash prizes.

In order to avoid and prevent accidents due to weather conditions in the course of hazardous work and to protect the life and health of employees, services are purchased for the daily provision of information on weather conditions in the region.

In 2018, workplace certification was also conducted. Compulsory medical examination and compulsory employee insurance against occupational accidents were provided.

In order to ensure well-kill safety of facilities and to prevent the occurrence and eliminate open water, gas, oil flows, and to do comprehensive work on the implementation of the rules and instructions for preventing the occurrence of open water, gas and oil flows at serviced facilities, and to manage emergency operations on the elimination of open water, gas and oil flows, according to Article 69 of Chapter 14 of Law of the Republic of Kazakhstan No. 188-V dated Apr 11, 2014 *On Civil Defense*; preventive maintenance services to avoid the occurrence and eliminate showings of oil-gas and water, open gas and oil flows. Work is in progress to ensure fire safety.

Occupational Accident Rates

During 2018, four accidents were registered in the production structural units of the joint-stock company. A comprehensive analysis of all four cases was carried out, conclusions were drawn and measures were taken to prevent their recurrence. There were no fatal accidents.

Indicators	For 12 months of 2018
Average number of employees, ppl	5,118
Total number of accidents	4
Total number of injured including:	4
– death accident	–
– severe injury	1
– minor injury	3
Disability category assigned, ppl	–

ENVIRONMENTAL PROTECTION

The Company conducts continuous monitoring of environmental components (air, water, soil, etc.). The environmental protection and prevention of environmental pollution in the course of its production activities are reduced to determining the expected impact on the environment components, developing environmental protection measures that minimize the potential impact.

Openness

The Company is systematically working to reduce the adverse environmental impact.

On January 22, the World Wildlife Fund (WWF) of Russia and CREON group supported by the Ministry of Energy of the Republic of Kazakhstan presented the results of the Rating of Openness of Oil and Gas Companies in the Area of Environmental Responsibility in Kazakhstan in Astana. The project is implemented with the support of the UN Environment Program in Central Asia (UNEP-CA); the rating was calculated by the National Rating Agency.

The rating is based on public information on the activities of companies and is made pursuant to several criteria, such as environmental management, environmental impact and information disclosure/transparency.

For the second year, this rating was led by KazMunayGas National Company, and Karachaganak Petroleum Operating B. V. ranked the second. For the first time, Embamunaigas entered the top three participants demonstrating the greatest commitment to environmental responsibility and transparency among KMG NC subsidiaries.

The Company is deeply aware of its responsibility towards nature and society and is committed to continuous improvement in environmental management, as well as to ensuring maximum transparency and openness.

Impact on the Atmospheric Air

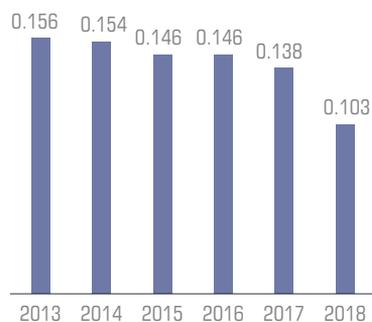
Oil production, collection and treatment of hydrocarbon raw materials to marketable products at the fields are the core production activities of Embamunaigas JSC. The production activities of Embamunaigas JSC are inevitably accompanied by emissions into the atmosphere with a direct greenhouse effect: carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O).

Oil heating furnaces, boiler and flare units, diesel power plants, mobile welding units are the main sources of emissions of pollutants in the production process.

The specific gross emission of pollutants in 2018 was 0.00137 tonnes of pollutants/year per tonnes of hydrocarbon production (0.00169 tonnes of pollutants/year in 2017).

In order to monitor greenhouse gas emissions (parameters for calculating emissions), the enterprise collects information on changes in activity intensity, unit (process) parameters and monitors the appropriate level of greenhouse gas emissions in order to take the necessary measures to prevent emissions and reduce emissions in a timely manner.

Specific Gross Emissions of Greenhouse Gases into the Atmosphere, kg/t of hydrocarbons produced (TFOE)



Associated Gas Utilization

Large-scale work is in progress to keep the environmental balance in the areas where production facilities are located. As part of fulfilling the requirements of the legislative base, i.e. the Code of the Republic of Kazakhstan *On Subsoil and Subsoil Use*, Embamunaigas JSC has developed and approved a number of associated petroleum gas utilization programs aimed at reducing and in the long term 100% eliminating associated petroleum gas flaring. Implementation of the planned programs makes it possible to solve the issues of reducing emissions into the atmosphere, and thereby reduce the contribution of gaseous emissions to the greenhouse effect.

As part of the program of 100% utilization of associated petroleum gas of the Prorva Group of Fields, a project is in progress to commission the Associated Petroleum Gas Desulfurization Unit with a capacity of 150 million m³ per year.

After commissioning, the unit produces marketable gas, marketable granulated sulfur, and stable gas condensate. The project is unique due to the fact that for the first time in Kazakhstan, patented LO-CAT technology from MERICHEM will be used to produce harmless elemental sulfur. This is an environmentally friendly technology; it contains no toxic chemicals, produces no harmful by-products and provides very high hydrogen sulfide removal efficiency.

Previously, similar associated petroleum gas utilization units were launched at the Company's production structural units – Zhaiymunaigaz OGPO (S. Balgimbayev Field) and Dossormunaigaz OGPO (East Makat Field). At these facilities, associated petroleum gas is treated to market standards and sent to satisfy the process and social gas needs of fields. Since 2013, Embamunaigas JSC, through KazTransGas-Aimak JSC, has been supplying marketable gas to the residents of Makat, Kyzylkok and Issatay Districts of Atyrau Region. Thus, in addition to minimizing the adverse environmental impact, these units supply natural gas to the residents of the three districts of the region at a beneficial price.

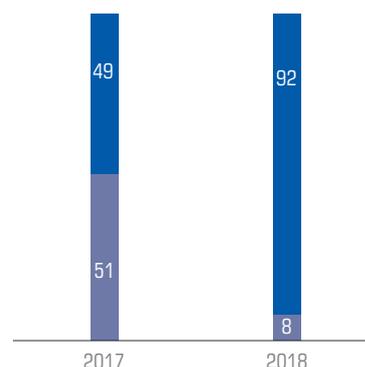
Soil Pollution Prevention

The Company carries out much work to improve the state of the environment within its territories. While developing fields that have a life span of many decades, Embamunaigas JSC has invested heavily in environmental measures and continues investing in projects aimed at cleaning historically polluted areas.

According to the results of previous surveys, the areas of land historically contaminated with oil products were identified within the Company's contract territory. The Company has developed a project and estimates of the reclamation of historical pollution. It is planned to complete the cleaning of the land historically polluted with oil products within the boundaries of the Embamunaigas JSC mining allotment by 2022.

In order to improve the environment in the region and make a comprehensive assessment of the current state of the soil layer within the contract area of Embamunaigas JSC, it is planned to conduct a research on the prevention of land desertification with the development of methods to combat desertification, preserve and restore lands subject to desertification as a result of human activities in 2019. The purpose of the study is to identify disturbed lands, free-moving sand areas and develop specific measures for the restoration of disturbed lands and the prevention of land desertification.

The Level of Associated Petroleum Gas Utilization in Percentage (%)



An integrated approach to the implementation of gas initiatives will create an effective infrastructure for the production based on associated petroleum gas utilization by 2027.

Significant funds are spent annually to clean up historically polluted areas and process oil sludge.

When conducting oil operations, the Company takes measures to prevent, contain and respond to accidental spills. There are accident response plans at the site facilities. Based on the results of 2018, there were no accidental oil spills.

Waste Management

Embamunaigas JSC annually takes measures to reduce waste volumes, thereby reducing the man-made impact of accumulated waste on the environment.

Polluted soil and oil sludge are processed with the involvement of third-party organizations using bioremediation, i.e. an effective and environmentally friendly biological method. In addition, the processing is carried out at the Finnish KASC-30M oil sludge processing unit manufactured by Kalottikkone. The recycled soil is used in the construction and repair of roads at the fields.

In addition to this, the auxiliary production waste (waste lamps, oils, etc.) is disposed of by transfer to specialized enterprises.

The ratio of total recycled and neutralized waste (including waste recycled and neutralized by third parties) to the waste in circulation was 0.18 tonne/tonne in 2018.

The Company carries out an inventory of sources of production and consumption waste, draws up passports for each type of waste, develops waste management instructions.

Waste Dynamics, tonnes

	Waste accumulated at landfills as of Jan 1, 2017	Generated in 2017	Disposed of in 2017	Recycled in 2017	Accumulated as of the end of 2017
oil contaminated soil	6,260.72	9,142.68	2,932.91	11,495.53	3,907.87
oil sludge	1,982.76	75	75	500	1,557.76
Total	8,243.475	9,217.684	3,007.91	11,995.53	5,465.629
	Waste accumulated at landfills as of Jan 1, 2018	Generated in 2018	Disposed of in 2018	Recycled in 2018	Accumulated as of the end of 2018
oil contaminated soil	3,907.87	6,008.82	5,841.77	2,167.05	7,749.64
oil sludge	1,557.76	537.7	537.7		2,095.46
Total	5,465.629	6,546.52	6,379.47	2,167.05	9,845.1

Water Protection

As part of the rational use of fresh water, the Company is working on the exploration and further use of groundwater for the production needs of Embamunaigas JSC facilities in the South Emba basin and Kainar massif with an estimation of groundwater reserves of Jura Cenomanian deposits. The implementation of the program will reduce the Company's dependence on the consumption of the Volga water for industrial and domestic needs.

At the Company's facilities, domestic wastewater generated is discharged through an external free-flow sewage system to its own sewage treatment plant with subsequent discharge of treated wastewater to its own wastewater receivers, such as filtration fields or evaporation fields. There is a grid of observation wells available to monitor the state of groundwater around the evaporation fields.

Embamunaigas JSC does not discharge polluted water into natural surface water bodies. In 2018, the water consumption for the Company's own needs amounted to 870,500 m³ (1,012,530 m³ in 2017).

In order to prevent the impacts on coastal and aquatic ecosystems, a protective dam is fortified within the Prorva Field at Zhylyoimunaigas OGPO, and flood-prone and flooded wells are monitored.

Embamunaigas JSC does not discharge polluted water into natural surface water bodies.

Biodiversity

In accordance with the natural agricultural zoning of the land fund, the contract territory of Embamunaigas JSC is located in the desert zone and belongs to the Caspian Province of the subzone of brown soils.

The vegetation within the territory of production facilities is characterized by the predominance of desert and steppe elements; there are typical halophytic (salt-loving) plants in some places with *Echinochloa*, *Halocnemum strobilaceum*, *Suaeda prostrata* Pall, etc.

There are about 39 species of mammals in the area of the production activities of the enterprise. In addition to common rodents (hare, ground squirrel, gerbil, jerboa, etc.), there are predators, such as wolves, corsac foxes, foxes, wild cats, weasels, etc.; ungulates, such as goitred gazelle, saiga and boar; reptiles – viper, whip snake, grass snake, several species of lizards, as well as frogs and toads.

The main measures to minimize the adverse human impact on the flora include:

- ▶ forbidding staff from hunting animals, aimless killing of reptiles;
- ▶ strict adherence to technology;
- ▶ prohibited feeding and luring wild animals;
- ▶ prohibited poaching and all types of hunting; and
- ▶ restoration of degraded land.

Biodiversity conservation is a part of the Company's environmental activities. Environmental monitoring of the state of the environment in the area of location of the facilities is carried out, including monitoring of the state of atmospheric air, groundwater and wastewater, soil, flora and fauna (the amount of funding for 2018 was 58,180 thous. KZT net of VAT).

Energy Efficiency

The Energy Management System of Embamunaigas JSC was developed in accordance with the international standard ISO 50001 and includes the energy management system guidance, documented procedures and manuals. The Company's management determined and approved the Energy Management Policy, set the relevant energy management goals, developed measures to improve energy performance.

ISO 50001 was introduced in 2013 in accordance with the Law of the Republic of Kazakhstan *On Energy Saving and Energy Efficiency Improvement*.

As part of the energy analysis, the amounts of energy resources consumed were measured, such as electricity, natural and associated petroleum gas, oil for internal needs, fuel (gasoline, diesel fuel).

According to the results of the supervisory audit conducted in June 2018, the certification body confirmed the compliance of the Company's activities with the international standard ISO 50001:2011.

The actual key energy efficiency indicator in 2018 was 0.053 TFOE/tonne (the same as in 2017).

Innovations

The Company conducts researches, surveys and other developments in the area of environmental protection. The methods of disposal and detoxification of harmful industrial substances and motor vehicle emissions are studied; the automated production of pollutant monitoring and control systems is developed, which is of current importance due to a huge area of the Company's production facilities; production waste disposal are regulated; and other measures are taken.

The Company also provides environmental awareness raising among employees of the enterprise and the population of the region and is working to improve the skills of specialists in environmental protection.



DIGITAL EMBARUNAGAS

TRANSPORT MONITORING

The Satellite Monitoring System Wialon introduced allows specialists to monitor transport online, including comprehensive analytics and reports for end users:

- ▶ Leaving specific geofences
- ▶ Distance report
- ▶ Speed monitoring
- ▶ POL consumption



GPS



06



**APPENDIX.
FINANCIAL
STATEMENTS**

EMBAMUNAIGAS JOINT STOCK COMPANY

Financial statements

For the year ended December 31, 2018 with independent auditor's report

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Independent auditor's report

To the Shareholder and Management of Embamunaigas Joint Stock Company

Opinion

We have audited the financial statements of Embamunaigas JSC (the Company), which comprise the statement of financial position as at 31 December 2018, and the statement of comprehensive income, statement of changes in equity and statement of cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the Company as at 31 December 2018 and its financial performance and its cash flows for the year then ended in accordance with International Financial Reporting Standards (IFRSs).

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the *Auditor's responsibilities for the audit of the financial statements* section of our report. We are independent of the Company in accordance with the International Ethics Standards Board for Accountants' *Code of Ethics for Professional Accountants (IESBA Code)*, and we have fulfilled our other ethical responsibilities in accordance with the IESBA Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of management and Board of Directors for the financial statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with IFRSs, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

Board of Directors is responsible for overseeing the Company's financial reporting process.



Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with ISAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- ▶ Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- ▶ Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
- ▶ Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- ▶ Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.
- ▶ Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.



We communicate with The Board of Directors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Ernst & Young LLP



Adil Syzdykov
Auditor

Gulmira Turmagambetova
General Director
Ernst & Young LLP

Auditor qualification certificate No.
МФ-0000172 dated 23 December 2013

State audit license for audit activities on
the territory of the Republic of Kazakhstan:
series МФЮ-2 No. 0000003 issued by
the Ministry of finance of the Republic of
Kazakhstan on 15 July 2005

050060, Republic of Kazakhstan, Almaty
Al-Farabi ave., 77/7, Esentai Tower

28 February 2019

STATEMENT OF FINANCIAL POSITION

In thousands of tenges

	Notes	At December 31,	
		2018	2017
Assets			
Non-current assets			
Property, plant and equipment	4	187,656,191	173,028,945
Intangible assets	5	20,686,194	15,045,692
Other financial assets	6	38,005,431	32,258,446
Deferred tax asset	14	10,380,026	10,415,904
Advances paid for non-current assets		2,154,102	1,670,720
Total non-current assets		258,881,944	232,419,707
Current assets			
Inventories	7	10,944,113	7,272,093
Income tax prepaid		3,968,337	772,876
Taxes prepaid and VAT recoverable		15,899,345	12,244,843
Advances paid and deferred expenses		3,507,440	2,819,251
Trade and other accounts receivable	6	30,838,853	35,948,751
Other financial assets	6	-	31,884,021
Cash and cash equivalents	6	111,445,891	73,423,065
Total current assets		176,603,979	164,364,900
Total assets		435,485,923	396,784,607
Equity			
Share capital	8	162,399,820	162,399,820
Retained earnings		153,032,636	157,246,242
Total equity		315,432,456	319,646,062
Liabilities			
Non-current liabilities			
Historical obligations	9	5,806,806	1,807,468
Provisions	10	24,151,252	23,530,091

The accounting policies and explanatory notes on pages 96 to 123 are an integral part of these financial statements.

	Notes	At December 31,	
		2018	2017
Total non-current liabilities		29,958,058	25,337,559
Current liabilities			
Historical obligations	9	1,573,568	2,623,489
Provisions	10	36,329,095	8,413,484
Mineral extraction and rent tax payable		23,287,080	17,947,342
Trade and other accounts payable		28,905,666	22,816,671
Total current liabilities		90,095,409	51,800,986
Total liabilities		120,053,467	77,138,545
Total liabilities and equity		435,485,923	396,784,607

Chairman of the Board

Zhaksybekov A.Y.

Deputy Chairman of the Management Board on Economy and Finance



Tasmagambetova R.N.

Chief accountant

Makhambetov N.Zh.

STATEMENT OF COMPREHENSIVE INCOME

In thousands of tenge

	Note	For the year ended December 31,	
		2018	2017
Revenue	11	433,436,224	309,746,803
Cost of sales	12	(137,184,051)	(121,289,769)
Gross profit		296,252,173	188,457,034
Selling expenses	13	(155,497,031)	(102,991,446)
General and administrative expenses	14	(45,098,205)	(11,140,231)
Exploration expenses		(2,742,279)	(1,274,476)
Reversal of provision for VAT recoverable, net		-	2,518,795
Loss on disposal of property, plant and equipment		(651,970)	(1,463,005)
Finance income		1,406,614	2,239,174
Finance costs		(2,582,521)	(1,778,313)
Net foreign exchange difference		21,868,468	980,842
Profit before taxation		112,955,249	75,548,374
Income tax expenses	15	(29,566,260)	(19,425,344)
Profit for the year		83,388,989	56,123,030
Actuarial loss, net of taxes	10	(1,758,050)	(280,880)
Other comprehensive loss not to be reclassified to profit or loss in subsequent periods		(1,758,050)	(280,880)
Total comprehensive income for the year, net of tax		81,630,939	55,842,150

Chairman of the Board

Zhaksybekov A.Y.

Deputy Chairman of the Management Board on Economy and Finance

Tasmagambetova R.N.

Chief accountant

Makhambetov N.Zh.



The accounting policies and explanatory notes on pages 96 to 123 are an integral part of these financial statements.

STATEMENT OF CASH FLOWS

In thousands of tenge

	Note	For the year ended December 31,	
		2018	2017
Cash flows from operating activities			
Profit before tax		112,955,249	75,548,374
Adjustments to add/(deduct) non-cash items			
Depreciation, depletion and amortization		21,734,163	20,034,822
Loss on disposal of property, plant and equipment	4	651,970	1,463,005
Foreign exchange gain		(14,836,862)	(1,501,616)
Other non-cash income and expense		1,798,561	2,937,922
Reversal of provision for VAT recoverable, net		–	(2,518,795)
Change in provisions		25,773,853	6,727,970
Plus finance costs		2,582,521	1,778,313
Less finance income		(–1,406,613)	(2,239,174)
Working capital adjustments			
Change in inventories		(3,771,519)	(932,617)
Change in taxes prepaid and VAT recoverable		(3,654,502)	(4,463,743)
Change in advances paid and deferred expenses		(688,189)	2,796,111
Change in trade and other receivables		5,109,898	(5,589,160)
Change in trade and other accounts payable		3,591,308	1,296,039
Change in mineral extraction and rent tax payable		5,129,738	12,876,841
Income tax paid		(33,267,857)	(15,278,611)
Net cash flows from operating activities		121,701,719	92,935,681
Cash flows from investing activities			
Purchase of property, plant and equipment		(30,692,389)	(27,158,204)
Purchase of intangible assets		(7,139,258)	(8,721,672)
Withdrawal of term deposits		30,117,107	23,840,345
Interest received		1,406,301	2,195,633
Net cash flows used in investing activities		(6,308,239)	(9,843,898)

The accounting policies and explanatory notes on pages 96 to 123 are an integral part of these financial statements.

STATEMENT OF CHANGES IN EQUITY

In thousands of tenge unless otherwise indicated

	Share capital	Retained earnings	Total equity
At December 31, 2016	162,399,820	162,758,744	325,158,564
Profit for the year	-	56,123,030	56,123,030
Other comprehensive income	-	(280,880)	(280,880)
Total comprehensive income	-	55,842,150	55,842,150
Dividends (Note 8)	-	(61,354,652)	(61,354,652)
At December 31, 2017	162,399,820	157,246,242	319,646,062
Profit for the year	-	83,388,989	83,388,989
Other comprehensive income	-	(1,758,050)	(1,758,050)
Total comprehensive income	-	81,630,939	81,630,939
Dividends (Note 8)	-	(85,844,545)	(85,844,545)
At December 31, 2018	162,399,820	153,032,636	315,432,456

Chairman of the Board

Zhaksybekov A.Y.

Deputy Chairman of the Management Board on Economy and Finance



Tasmagambetova R.N.

Chief accountant

Makhambetov N.Zh.

The accounting policies and explanatory notes on pages 96 to 123 are an integral part of these financial statements.

NOTES TO THE FINANCIAL STATEMENTS

1. CORPORATE INFORMATION AND PRINCIPAL ACTIVITIES

Embamunaigas Joint Stock Company (the "Company") was incorporated in the Republic of Kazakhstan on February 27, 2012 following the decision of the Board of Directors of KazMunayGas Exploration Production Joint Stock Company ("KMG EP" or the "Parent Company") dated January 31, 2012.

The Company is engaged in exploration, development, production, processing and export of hydrocarbons. Oil and gas operations of the Company are based on oil and gas assets located in Atyrau region of Western Kazakhstan. The Company develops oil fields under the following subsoil use contracts: contract No. 37 (oilfield Kenbai), contract No. 61 (oilfield South East Novobogatinskoe), contract No. 211 (23 oilfields), contracts No. 413 (15 oilfields), contract No. 327 (oilfield Taisogan), contract No. 992 (oilfield West Novobogatinskoe); contract No. 406 (oilfield Liman); contract No. 3577 (oilfield Karaton-Sarkamys). On February 25, 2015 addendums to extend contracts between the Ministry of Energy and Embamunaigas JSC were signed for the following contracts: contract No. 37 valid until 2041, contract No. 61 valid until 2048, contract No 211 valid until 2037, contract No. 413 valid until 2043.

The sole shareholder of the Company is KMG EP. KMG EP's principal shareholder is National Company KazMunayGas JSC ("NC KMG"), which represents the state's interests in the Kazakhstan oil and gas industry. NC KMG is 90% owned by Sovereign Wealth Fund Samruk-Kazyna JSC ("SWF "Samruk-Kazyna"), which is in turn 100% owned by the Government of the Republic of Kazakhstan (the "Government").

These financial statements have been signed on behalf of the Company by the Chairman of the Board, Deputy Chairman of the Board on Economy and Finance and Chief Accountant on February 28, 2019.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The significant accounting policies applied in the preparation of these financial statements are set out below. These policies have been consistently applied to all the years presented, unless otherwise stated.

2.1. Basis of preparation

These financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS"). The financial statements have been prepared under the historical cost convention except for financial instruments. These financial statements are presented in tenge and all values are rounded to the nearest thousand unless otherwise stated.

The preparation of financial statements in conformity with IFRS requires the use of certain critical accounting estimates. It also requires management to exercise its judgment in the process of applying the Company's accounting policies. The areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the financial statements are disclosed in Note 3.

Exchange rates

The official exchange rate of the Kazakhstan tenge to the US dollar at December 31, 2018 and December 31, 2017 was 384.20 and 332.33 tenge, respectively. Any translation of tenge amounts to US dollar or any other hard currency should not be construed as a representation that such tenge amounts have been, could be or will in the future be converted into hard currency at the exchange rate shown or at any other exchange rate.

Adopted accounting standards and interpretations

The Company adopted the following new and amended IFRSs, which had no material effect on the financial performance or financial position of the Company:

- | | |
|---------------------------|---|
| ▶ IFRS 15 | <i>Revenue from Contracts with Customers;</i> |
| ▶ IFRS 9 | <i>Financial Instruments: Classification and Measurement;</i> |
| ▶ IFRIC Interpretation 22 | <i>Foreign Currency Transactions and Advance Consideration;</i> |
| ▶ IFRS 2 | <i>Classification and Measurement of Share-based Payment Transactions (amendments).</i> |

Based on the Company's analysis of IFRS 15, its revenue recognition method for contracts will not change with the application of the new standard, and revenues will continue be recorded on a month-by-month basis in accordance with actual invoices.

IFRS 9 brings together all three aspects of accounting for financial instruments: classification and measurement, impairment and hedge accounting. The Company applied the new standard starting from the required effective date of January 1, 2018 and did not restate the comparative information. Based on the results of a detailed assessment of the impact of all three aspects of IFRS 9 on the financial position of the Company as at December 31, 2018 and on the Company's statement of comprehensive income for the twelve months ended December 31, 2018, no significant impact was identified.

Standards issued but not yet effective

Standards and interpretations issued but not yet effective up to the date of issuance of the Company's financial statements, and which according to the Company's opinion could affect the disclosures, financial position or performance are listed below. The Company intends to adopt these standards and interpretations, if applicable when they become effective (effective for annual periods beginning on or after):

- | | |
|-------------------------|---|
| ▶ IFRS 16 | <i>Lease</i> (January 1, 2019); |
| ▶ IFRS 10 and IAS 28 | <i>Sale or Contribution of Assets between an Investor and its Associate or Joint Venture</i> (Amendments) (postponed indefinitely); |
| ▶ IFRIC 23 | <i>Uncertainty over Income Tax Treatments</i> (January 1, 2019); |
| ▶ Improvements to IFRSs | 2015–2017 cycle (January 1, 2019). |

2.2. Foreign currency translation

The financial statements are presented in Kazakhstani tenge, which is the Company's functional currency. Transactions in foreign currencies are initially recorded at the functional currency rate ruling at the date of the transactions. Monetary assets and liabilities denominated in foreign currencies are retranslated at the functional currency rate of exchange ruling at the reporting date. All foreign exchange differences are included within profit and loss.

2.3. Oil and gas field exploration and development expenditures

Exploration license costs

Exploration license costs are capitalized within intangible assets and amortized on a straight-line basis over the estimated period of exploration. Each property is reviewed on an annual basis to confirm that drilling activity is planned. If no future activity is planned, the remaining balance of the license cost is written off. Upon determination of economically recoverable reserves ('proved reserves' or 'commercial reserves'), amortization ceases and the remaining costs are aggregated with exploration expenditure and held on a field-by-field basis as proved properties awaiting approval within other intangible assets. When development is approved internally, and all licenses and approvals are obtained from the appropriate regulatory bodies, then the relevant expenditure is transferred to property, plant and equipment (oil and natural gas properties).

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

2.3 Oil and gas field exploration and development expenditures *(continued)*

Exploration expenditures

Geological and geophysical exploration costs are charged against income as incurred. Costs directly associated with an exploration well are capitalized within intangible assets (exploration and evaluation assets) until the drilling of the well is complete and the results have been evaluated. These costs include employee remuneration, materials, fuel and electric energy, rig costs and payments made to contractors. If hydrocarbons are not found, the exploration expenditure is written off as a dry hole. If hydrocarbons are found and, subject to further appraisal activity, which may include the drilling of further wells (exploration or exploratory-type stratigraphic test wells), are likely to be capable of commercial development then, the costs continue to be carried as an asset. All such carried costs are subject to technical, commercial and management review at least once a year to confirm the continued intent to develop or otherwise extract value from the discovery. When this is no longer the case, the costs are written off.

When proved reserves of oil and natural gas are determined and development is sanctioned, the relevant expenditure is transferred to property, plant and equipment (oil and natural gas properties).

Development costs

Expenditure on the construction, installation or completion of infrastructure facilities such as platforms, pipelines and drilling of development wells is capitalized within property, plant and equipment, except for expenditure related to development or delineation wells which do not find commercial quantities of hydrocarbons and are written off as dry hole to expenses of the period.

2.4. Property, plant and equipment

Property, plant and equipment are stated at cost less accumulated depreciation, depletion and impairment.

The initial cost of assets comprises its purchase price or construction price, any costs directly attributable to bringing the asset into operation and the initial estimate of asset abandonment costs, if any. The purchase price or construction cost is the aggregate amount paid and the fair value of any other consideration given to acquire the asset.

Oil and natural gas properties are depreciated using a unit-of-production method over proved developed reserves. Certain oil and gas assets with useful lives less than the remaining life of the fields are depreciated on a straight-line basis over their useful lives.

Other property, plant and equipment principally comprise buildings, machinery and equipment, which are depreciated on a straight-line basis over average useful lives.

The expected useful lives of property, plant and equipment are reviewed on an annual basis and, if necessary, changes in useful lives are accounted for prospectively.

The current value of property, plant and equipment is reviewed for impairment whenever events or changes in circumstances indicate the current value may not be recoverable.

An item of property, plant and equipment, inclusive of production wells which stop producing commercial quantities of hydrocarbons and are scheduled for abandonment, is derecognized upon disposal or when no future economic benefits are expected to arise from the continued use of the asset. Any gain or loss arising on derecognition of the asset (calculated as the difference between the net disposal proceeds and the current amount of the item) is included in the statement of comprehensive income in the period the item is derecognized.

2.5. Impairment of non-financial assets

The Company assesses assets or groups of assets for impairment whenever events or changes in circumstances indicate that the current value of an asset may not be recoverable.

Individual assets are grouped for impairment assessment purposes at the lowest level at which there are identifiable cash flows that are largely independent of the cash flows of other groups of assets. If any such indication of impairment exists or when annual impairment testing for an asset group is required, the Company makes a estimate of its recoverable amount. An asset group's recoverable amount is the higher of its fair value less costs to sell and its value in use. Where the carrying amount of an asset group exceeds its recoverable amount, the asset group is considered impaired and is written down to its recoverable amount. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessment of the time value of money.

An assessment is made at each reporting date as to whether there is any indication that previously recognised impairment losses may no longer exist or may have decreased. If such indication exists, the recoverable amount is estimated. A previously recognised impairment loss is reversed only if there has been a change in the estimates used to determine the asset's recoverable amount since the last impairment loss was recognized. If that is the case, the current value of the asset is increased to its recoverable amount. The increased amount may not exceed the current amount, which would have been determined, net of depreciation or amortisation, had not the impairment loss been recognized in the previous periods. Such reversal is recognized in the statement of comprehensive income. After such a reversal, the depreciation charge is adjusted in future periods to allocate the asset's revised carrying amount, less any residual value, on a systematic basis over its remaining useful life.

2.6. Intangible assets

Intangible assets are stated at cost, less accumulated amortization and accumulated impairment losses. Intangible assets include capitalized expenditure for exploration and evaluation and other intangible assets, which are mainly comprised of computer software. Intangible assets acquired separately from a business are carried initially at cost. The initial cost is the aggregate amount paid and the fair value of any other consideration given to acquire the asset. Computer software costs have an estimated useful life of 3 to 7 years and are amortized on a straight line basis over this period.

The current value of intangible assets is reviewed for impairment whenever events or changes in circumstances indicate the carrying value may not be recoverable.

2.7. Financial assets

Initial recognition and measurement

Financial assets are classified, at initial recognition, as subsequently measured at amortised cost, fair value through other comprehensive income (OCI), and fair value through profit or loss.

The classification of financial assets at initial recognition depends on the financial asset's contractual cash flow characteristics and the Company's business model for managing them. With the exception of trade receivables that do not contain a significant financing component or for which the Company has applied the practical expedient, the Company initially measures a financial asset at its fair value plus, in the case of a financial asset not at fair value through profit or loss, transaction costs. Trade receivables that do not contain a significant financing component or for which the Company has applied the practical expedient are measured at the transaction price determined under IFRS 15.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

2.7 Financial assets *(continued)*

In order for a financial asset to be classified and measured at amortised cost or fair value through OCI, it needs to give rise to cash flows that are 'solely payments of principal and interest (SPPI)' on the principal amount outstanding. This assessment is referred to as the SPPI test and is performed at an instrument level.

The Company's business model for managing financial assets refers to how it manages its financial assets in order to generate cash flows. The business model determines whether cash flows will result from collecting contractual cash flows, selling the financial assets, or both.

Purchases or sales of financial assets that require delivery of assets within a time frame established by regulation or convention in the market place (regular way trades) are recognised on the trade date, i.e., the date that the Company commits to purchase or sell the asset.

Subsequent measurement

For purposes of subsequent measurement financial assets are classified in two categories:

- ▶ Financial assets at amortised cost (debt instruments);
- ▶ Financial assets at fair value through profit or loss.

Financial assets at amortised cost (debt instruments)

This category is the most relevant to the Company. The Company measures financial assets at amortised cost if both of the following conditions are met:

- ▶ The financial asset is held within a business model with the objective to hold financial assets in order to collect contractual cash flows; and
- ▶ The contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Financial assets at amortised cost are subsequently measured using the effective interest (EIR) method and are subject to impairment. Gains and losses are recognised in profit or loss when the asset is derecognised, modified or impaired.

The Company's financial assets at amortised cost include trade receivables.

Financial assets at fair value through profit or loss

Financial assets at fair value through profit or loss include financial assets held for trading, financial assets designated upon initial recognition at fair value through profit or loss, or financial assets mandatorily required to be measured at fair value. Financial assets are classified as held for trading if they are acquired for the purpose of selling in the near term. Derivatives, including separated embedded derivatives, are also classified as held for trading unless they are designated by the Company as effective hedging instruments. Financial assets with cash flows that are not solely payments of principal and interest are classified and measured at fair value through profit or loss, irrespective of the business model. Notwithstanding the criteria for debt instruments to be classified at amortised cost or at fair

value through OCI, as described above, debt instruments may be designated at fair value through profit or loss on initial recognition if doing so eliminates, or significantly reduces, an accounting mismatch.

Financial assets at fair value through profit or loss are carried in the statement of financial position at fair value with net changes in fair value recognised in the statement of profit or loss.

Derecognition

A financial asset (or, where applicable a part of a financial asset or part of a group of similar financial assets) is derecognized from the statement of financial position where:

- ▶ The rights to receive cash flows from the asset have expired;
- ▶ The Company has transferred its rights to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without material delay to a third party under a 'pass-through' arrangement; and either (a) the Company has transferred substantially all the risks and rewards of the asset, or (b) the Company has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

When the Company has transferred its rights to receive cash flows from an asset or has entered into a pass-through arrangement, it evaluates if, and to what extent, it has retained the risks and rewards of ownership. When it has neither transferred nor retained substantially all of the risks and rewards of the asset, nor transferred control of the asset, the Company continues to recognise the transferred asset to the extent of the Company's continuing involvement. In that case, the Company also recognises an associated liability. The transferred asset and the associated liability are measured on a basis that reflects the rights and obligations that the Company has retained.

Continuing involvement that takes the form of a guarantee over the transferred asset is measured at the lower of the original carrying amount of the asset and the maximum amount of consideration that the Company could be required to repay.

Impairment of financial assets

The Company recognises an allowance for expected credit losses (ECLs) for all debt instruments not held at fair value through profit or loss. ECLs are based on the difference between the contractual cash flows due in accordance with the contract and all the cash flows that the Company expects to receive, discounted at an approximation of the original effective interest rate. The expected cash flows will include cash flows from the sale of collateral held or other credit enhancements that are integral to the contractual terms.

ECLs are recognised in two stages. For credit exposures for which there has not been a significant increase in credit risk since initial recognition, ECLs are provided for credit losses that result from default events that are possible within the next 12-months (a 12-month ECL). For those credit exposures for which there has been a significant increase in credit risk since initial recognition, a loss allowance is required for credit losses expected over the remaining life of the exposure, irrespective of the timing of the default (a lifetime ECL).

For trade receivables and contract assets, the Company applies a simplified approach in calculating ECLs. Therefore, the Company does not track changes in credit risk, but instead recognises a loss allowance based on lifetime ECLs at each reporting date. The Company has established a provision matrix that is based on its historical credit loss experience, adjusted for forward-looking factors specific to the debtors and the economic environment.

The Company considers a financial asset in default when contractual payments are 90 days past due. However, in certain cases, the Company may also consider a financial asset to be in default when internal or external information indicates that the Company is unlikely to receive the outstanding contractual amounts in full before taking into account any credit enhancements held by the Company. The financial asset is written off if there is no reasonable expectation of recovering the contractual cash flows.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

2.8. Inventories

Inventories are recorded at the lower of cost on a first in, first out basis separately for each warehouse and net realizable value. Cost includes all costs incurred in the normal course of business in bringing each item to its present location and condition. The cost of crude oil is the cost of production, including the appropriate proportion of depreciation, depletion and amortization ("DD&A") and overheads based on normal capacity.

Net realizable value of crude oil is based on proposed selling price less any costs expected to be incurred to complete the sale. Materials and supplies inventories are carried at amounts that do not exceed the expected amounts recoverable in the normal course of business.

2.9. Value Added Tax (VAT)

The tax authorities permit the settlement of VAT on sales and purchases on a net basis. VAT recoverable represents VAT on domestic purchases net of VAT on domestic sales. Export sales are taxed at zero rate. However, settlement of VAT is allowed only on the basis of the results of a tax audit performed by the tax authorities to confirm the VAT recoverable.

If the effect of the time value of money is material, long-term VAT recoverable is discounted using a risk-free rate that reflects, where appropriate, the risks specific to the asset.

2.10. Cash and cash equivalents

Cash and cash equivalents include cash on hand, deposits with banks, other short-term highly liquid investments with original maturities of three months or less.

2.11. Share capital

Share capital

Ordinary shares and non-redeemable preference shares with discretionary dividends are both classified as equity. External costs directly attributable to the issue of new shares are shown as a deduction from the proceeds in equity.

Dividends

Dividends are recognized as a liability and deducted from equity at the reporting date only if they are declared before or on the reporting date. Dividends are disclosed when they are proposed before the reporting date or proposed or declared after the reporting date but before the financial statements were authorised for issue.

2.12. Trade payables

Trade payables are recognized initially at fair value and subsequently measured at amortized cost using the effective interest method.

2.13. Provisions

Provisions are recognised when the Company has a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation.

Where the Company expects some or all of a provision to be reimbursed, for example under an insurance contract, the reimbursement is recognised as a separate asset but only when the reimbursement is virtually certain. The expense relating to any provision is presented in the statement of comprehensive income net of any reimbursement.

If the effect of the time value of money is material, provisions are discounted using a current pre-tax rate that reflects, where appropriate, the risks specific to the liability. Where discounting is used, the increase in the provision due to the passage of time is recognized as a finance cost.

2.14. Employees benefits

The Company withholds 10% from the salary of its employees as the employees' contribution to their designated pension funds. The pension deductions are limited to a maximum of 212,500 tenge per month in 2018 (2017: 183,443 tenge per month). Under the current Kazakhstan legislation, employees are responsible for their retirement benefits. From January 1, 2014 the Company is required to contribute a mandatory 5% of the salary for a majority of its employees to their pension funds.

Long-term employee benefits

The Company offers to its employees long-term benefits prior to and after retirement in accordance with collective agreements between the Company and its employees and other documents. The collective agreement and other documents provide for certain one-off retirement payments, early retirement benefits, financial aid for employees' disability, anniversary and death. Eligibility for benefits is usually based on whether an employee is required to continue working before retirement.

The expected costs of one-off benefits and early retirement benefits are accrued over the period of employment using the same accounting methodology as used for defined benefit post-employment plans. Actuarial gains and losses arising in the year are taken to other comprehensive income. For this purpose actuarial gains and losses comprise both the effect of changes in actuarial assumptions and the effect of previous experience owing to the differences between actuarial assumptions and actual data. Other changes are recognised in the current period, including the current service costs, the past service costs and the impact of personnel layoff or completed settlements.

The most significant assumptions used in accounting for the benefit liability are the discount rate and mortality rates. Discount rate is used to determine net present value of future liabilities and each year unwinding of discount on such liabilities is recorded in the statement of comprehensive income as finance costs. The assumption of mortality is used to forecast the future benefit payment flow, which then is discounted to arrive at the net present value of liabilities.

Employees benefits apart from lump-sum retirement benefits are considered as other employee benefits. The expected cost of employee benefits is accrued over the period of employment using the same accounting methodology as used for the defined benefit plan.

These obligations are valued by independent qualified actuaries on an annual basis.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

2.15. Revenue recognition

The Company sells crude oil under short-term agreements priced by reference to Platt's index quotations and adjusted for freight, insurance and quality differentials. Title typically passes and revenues are recognized when crude oil is physically placed onboard a vessel or offloaded from the vessel, transferred into pipe or other delivery mechanism depending on the contractually agreed terms.

The Company's crude oil sale contracts generally specify maximum quantities of crude oil to be delivered over a certain period. Crude oil shipped but not yet delivered to the customer is recorded as inventory in the statement of financial position.

2.16. Income taxes

Current income tax costs comprise current income tax, excess profit tax and deferred income tax.

Current income tax assets and liabilities for the current and prior periods are measured at the amount expected to be recovered from or paid to the taxation authorities. The tax rates and tax laws used to compute the amount are those that are enacted or substantively enacted, by the reporting date, in the countries where the Company operates and generates taxable income.

Excess profit tax ("EPT") is treated as an income tax and forms part of income tax expense. In accordance with the applicable tax legislation enacted as of January 1, 2009, the Company accrues and pays EPT in respect of each subsurface use contract, at varying rates based on the ratio of aggregate annual income to deductions for the year for a particular subsurface use contract. The ratio of aggregate annual income to deductions in each tax year triggering the application of EPT is 1.25:1. EPT rates are applied to the part of the taxable income (taxable income after corporate income tax and allowable adjustments) related to each subsurface use contract in excess of 25% of the deductions attributable to each contract.

Deferred tax assets and liabilities are calculated in respect of all temporary differences using the liability method. Deferred corporate income taxes are provided for all temporary differences arising between the tax bases of assets and liabilities and their carrying values for financial reporting purposes, except where the deferred corporate income tax arises from the initial recognition of goodwill or of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss.

A deferred tax asset is recorded only to the extent that it is probable that taxable profit will be available against which the deductible temporary differences can be utilised. Deferred tax assets and liabilities are measured at tax rates that are expected to apply to the period when the asset is realised or the liability is settled, based on tax rates that have been enacted or substantively enacted at the reporting date.

3. SIGNIFICANT ACCOUNTING ESTIMATES AND JUDGEMENTS

The preparation of financial statements in conformity with IFRS requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of assets, liabilities, revenues and expenses, and the disclosure of contingent assets and liabilities during the reporting period. The most significant estimates are discussed below:

Oil and gas reserves

Oil and gas reserves are a material factor in the Company's computation of depreciation, depletion and amortization ("DD&A"). The Company estimates its reserves of oil and gas in accordance with the methodology of the Society of Petroleum Engineers ("SPE"). In estimating its reserves under SPE methodology, the Company uses the projected prices of analysts. Using planning prices for estimating proved reserves removes the impact of the volatility inherent in using year end spot prices.

Management believes that long-term planning price assumptions, which are also used by management for their business planning and investment decisions, are more consistent with the long-term nature of the upstream business and provide the most appropriate basis for estimating oil and gas reserves.

All reserve estimates involve some degree of uncertainty. The uncertainty depends chiefly on the amount of reliable geological and engineering data available at the time of the estimate and the interpretation of this data.

The relative degree of uncertainty can be conveyed by placing reserves into one of two principal classifications, either proved or unproved. Proved reserves are more certain to be recovered than unproved reserves and may be further sub-classified as developed and undeveloped to denote progressively increasing uncertainty in their recoverability.

Estimates are reviewed and revised annually. Revisions occur due to the evaluation or re-evaluation of already available geological, reservoir or production data; availability of new data; or changes to underlying price assumptions. Reserve estimates may also be revised due to improved recovery projects, changes in production capacity or changes in development strategy. Proved developed reserves are used to calculate the unit of production rates for DD&A.

The Company has included in proved reserves only those quantities that are expected to be produced during the confirmed license period. This is due to the uncertainties surrounding the outcome of such renewal procedures, since the renewal is ultimately at the discretion of the Government. An increase in the Company's license periods and corresponding increase in reported reserves would generally lead to lower DD&A expense and could materially affect earnings and indicate the reversal of impairment. A reduction in proved developed reserves will increase DD&A expense (assuming constant production), reduce income and could also result in an immediate write-down of the property's book value. Given the relatively small number of producing fields, it is possible that any changes in reserve estimates year on year could significantly affect prospective charges for DD&A.

3. SIGNIFICANT ACCOUNTING ESTIMATES AND JUDGEMENTS *(continued)*

Assets retirement obligations

Under the terms of certain contracts, legislation and regulations the Company has legal obligations to dismantle and remove tangible assets and restore the land at each production site. Specifically, the Company's obligation relates to the ongoing closure of all non-productive wells and final closure activities such as removal of pipes, buildings and recultivation of the contract territories. Since the license terms cannot be extended at the discretion of the Company, the settlement date of the final closure obligations has been assumed to be the end of each license period.

If the asset retirement obligations were to be settled at the end of the economic life of the properties, the recorded obligation would increase significantly due to the inclusion of all abandonment and closure costs. The extent of the Company's obligations to finance the abandonment of wells and for final closure costs depends on the terms of the respective contracts and current legislation.

Where neither contracts nor legislation include an unambiguous obligation to undertake or finance such final abandonment and closure costs at the end of the license term, no liability has been recognized. There is some uncertainty and significant judgment involved in making such a determination. Management's assessment of the presence or absence of such obligations could change with shifts in policies and practices of the Government or in the local industry practice. The Company calculates asset retirement obligations separately for each contract.

The amount of the obligation is the present value of the estimated expenditures expected to be required to settle the obligation adjusted for expected inflation and discounted using average long-term risk-free interest rates for emerging market sovereign debt adjusted for risks specific to the Kazakhstan market. The Company revises the obligation to restore the contract territory at each reporting date and adjusts to reflect the best estimate in accordance with IFRIC 1 Changes in Existing Decommissioning, Restoration of Natural Resources to deal with them and similar obligations.

Estimating the future closure costs involves significant estimates and judgments by management. Most of these obligations are many years in the future and, in addition to ambiguities in the legal requirements, the Company's estimate can be affected by changes in asset removal technologies, costs and industry practice. Approximately 34.23% and 28.65% of the provision at December 31, 2018 and 2017, respectively, relate to the final closure costs. The Company estimates future well abandonment cost using current year prices and the average long-term inflation rate. The long-term inflation and discount rates used to determine the carrying value of obligation at December 31, 2018 were 5.0% and 10% respectively (2017: 5.0% and 10%). Movements in the provision for asset retirement obligations are disclosed in *Note 10*.

Environmental remediation

The Company also makes judgments and estimates in establishing provisions for environmental remediation obligations. Environmental expenditures are expensed depending upon their future economic benefit. Expenditures that relate to an existing condition caused by past operations and do not have a future economic benefit are expensed.

Liabilities are determined based on current information about costs and expected plans for rehabilitation and are recorded on an undiscounted basis with reference to expectations of the management regarding the timing of the required procedures. The Company's environmental remediation provision represents management's best estimate based on an independent assessment of the anticipated expenditure necessary for the Company to remain in compliance with the current regulatory regime in Kazakhstan.

Further uncertainties related to environmental remediation are detailed in *Note 19*. Movements in the provision for environmental remediation are disclosed in *Note 10*.

Taxation

Deferred tax is calculated with respect to both corporate income tax ("CIT") and excess profit tax (EPT). Deferred CIT and EPT are calculated on temporary differences for assets and liabilities allocated to contracts for subsoil use at the expected rates.

Both deferred CIT and EPT bases are calculated under the terms of the tax legislation enacted in the tax code disclosed in *Note 15*. Subsequent uncertainties related to taxation are detailed in *Note 19*.

Employee benefits

The cost of long-term employee benefits before and after retirement and the present value of obligations is determined using actuarial valuations. An actuarial valuation involves making various assumptions that may differ from actual developments in the future. These include the determination of the discount rate, future salary increases, mortality rates and future benefits increases.

Due to the difficulty of assessing the basic assumptions and long-term obligations under the post-employment benefit plans, such obligations are highly sensitive to changes in these assumptions. All assumptions are reviewed at each reporting date.

The mortality rate is based on publicly available mortality tables. Future increase in salary is based on expected future inflation rates.

Main actuarial assumptions used for evaluation of liabilities on employee benefits as at December 31, 2018 and 2017 are as follows:

In percent	2018	2017
Discount rate	10.00%	10.00%
Inflation rate	5.00%	5.00%
Future increase of non-current annual payment	6.00%	7.00%
Future salary increase	6.00%	7.00%

As at December 31, 2018 and 2017 the average duration of post-retirement benefit obligations was 7.44 years and 7.5 years, respectively.

Sensitivity analysis of employee benefits obligation for the change in significant estimates as at December 31, 2018 is as follows:

	Decrease	Increase
Discount rate	-0.5%	+0.5%
	393,464	(368,907)
Rate of increase in benefit	-0.5%	+0.5%
	(385,902)	408,843

4. PROPERTY, PLANT AND EQUIPMENT

	Oil and gas assets	Other assets	Construction in progress	Total
Net book value at January 1, 2017	113,516,173	11,751,953	38,742,744	164,010,870
Proceeds	115,965	153,230	27,396,457	27,665,652
Disposals	(933,927)	(22,373)	(515,417)	(1,471,717)
Transfers from capital work-in-progress	17,501,973	2,868,460	(20,370,433)	-
Internal transfers	85,364	(145,914)	60,550	-
Depreciation	(15,583,064)	(1,592,796)	-	(17,175,860)
Net book value at December 31, 2017	114,702,484	13,012,560	45,313,901	173,028,945
Proceeds	31,665	108,950	31,986,229	32,126,844
Changes in estimate of asset retirement obligation	(22,004)	-	-	(22,004)
Disposals	(349,436)	(31,996)	(364,343)	(745,775)
Transfers from capital work-in-progress	24,696,346	3,412,018	(28,108,364)	-
Transfers from intangible assets	3,084,491	-	-	3,084,491
Internal transfers	(34,568)	37,008	(2,440)	-
Depreciation	(17,812,536)	(2,003,774)	-	(19,816,310)
Net book value at December 31, 2018	124,296,442	14,534,766	48,824,983	187,656,191
At December 31, 2017				
Cost	213,877,249	19,755,851	46,180,681	279,813,781
Accumulated depreciation	(99,061,852)	(6,701,312)	-	(105,763,164)
Accumulated impairment	(112,913)	(41,979)	(866,780)	(1,021,672)
Net book value	114,702,484	13,012,560	45,313,901	173,028,945
At December 31, 2018				
Cost	240,110,278	22,929,964	49,496,828	312,537,070
Accumulated depreciation	(115,699,798)	(8,353,219)	-	(124,053,017)
Accumulated impairment	(114,038)	(41,979)	(671,845)	(827,862)
Net book value	124,296,442	14,534,766	48,824,983	187,656,191

5. INTANGIBLE ASSETS

	Exploration and evaluation assets	Other intangibles	Total
Net book value at January 1, 2017	7,695,828	768,030	8,463,858
Proceeds	9,759,167	701,394	10,460,561
Disposals	(426,775)	(202)	(426,977)
Amortisation charge	(2,573,406)	(285,557)	(2,858,963)
Impairment	(592,787)	-	(592,787)
Net book value as at December 31, 2017	13,862,027	1,183,665	15,045,692
Proceeds	11,646,848	542,528	12,189,376
Transfer to property, plant and equipment	(3,084,491)	-	(3,084,491)
Disposals	(482,482)	-	(482,482)
Amortisation charge	(1,575,519)	(342,334)	(1,917,853)
Impairment	(1,064,048)	-	(1,064,048)
Net book value as at December 31, 2018	19,302,335	1,383,859	20,686,194
At December 31, 2017			
Cost	28,024,241	2,271,572	30,295,813
Accumulated amortisation	(13,569,427)	(1,087,907)	(14,657,334)
Accumulated impairment	(592,787)	-	(592,787)
Net book value	13,862,027	1,183,665	15,045,692
At December 31, 2018			
Cost	35,511,285	2,813,782	38,325,067
Accumulated amortisation	(15,144,902)	(1,429,923)	(16,574,825)
Accumulated impairment	(1,064,048)	-	(1,064,048)
Net book value	19,302,335	1,383,859	20,686,194

6. FINANCIAL ASSETS

Trade and other accounts receivable

	2018	2017
Trade accounts receivable	30,846,793	35,927,951
Other	42,015	20,800
Provision for expected credit losses on receivables	(49,955)	-
	30,838,853	35,948,751

As at December 31, 2018 the Company's trade receivables included receivables from sales of crude oil to KazMunayGas Trading AG ("KMG Trading"), subsidiary of NC KMG, in the amount of 26,839,255 thousand tenge (2017: 31,400,070 thousand tenge).

As at December 31, 2018 trade receivables of the Company are denominated in US dollars by 87% (2017: 85%).

The ageing analysis of trade and other receivables is as follows as at December 31:

	2018	2017
Current portion	30,797,201	35,927,079
0-30 days overdue	14,943	6,596
30-90 days overdue	-	2,011
90 and more days overdue	26,709	13,065
	30,838,853	35,948,751

Cash and cash equivalents

	2018	2017
US dollar denominated cash in banks and on hand	110,538,211	437,796
Time deposits with banks – tenge	897,986	2,231,401
tenge denominated cash in banks and on hand	9,694	48,500
US dollar denominated term deposits with banks	-	70,705,170
Euro denominated cash in banks and on hand	-	198
	111,445,891	73,423,065

Cash with banks earns interest at rates based on daily bank deposit rates. Deposits with banks are made for varying periods of between one day and three months, depending on the immediate cash requirements of the Company.

The weighted average interest rate on tenge denominated time deposits as at December 31, 2018 was 7.0% (2017: 7.9%). As at December 31, 2018, there were no time deposits in US dollars (2017: 0.1%).

Other financial assets

	2018	2017
Long-term deposits held to maturity denominated in US dollars	37,652,551	32,258,446
Long-term deposits held to maturity denominated in tenge	645,889	-
Provision for expected credit losses on deposits held to maturity	(293,009)	-
Total non-current financial assets	38,005,431	32,258,446
Time deposits denominated in US dollars	-	31,884,021
Total current financial assets	-	31,884,021
	38,005,431	64,142,467

Non-current financial assets comprise of liquidation fund deposits opened in accordance with subsoil use agreement for each contract until the end of the term of each contract. The weighted average interest rate on these deposits as at December 31, 2018 was 1.04% (2017: 1.5%).

7. INVENTORIES

	2018	2017
Crude oil	7,668,997	5,328,344
Materials	3,275,116	1,943,749
	10,944,113	7,272,093

As at December 31, 2018 the Company had 118,817 tonnes of crude oil in storage and transit (2017: 112,441 tonnes).

8. EQUITY

Authorized shares

The total number of authorized shares is 32,479,964 with par value of 5 thousand tenge, all of which are owned by the Parent Company as at December 31, 2018 and 2017 (2017: 32,479,964 with par value of 5 thousand tenge).

Dividends

In accordance with Kazakhstan legislation, dividends may not be declared if the Company has negative equity or if the payment of dividends would result in negative equity. In 2018 the Company declared and paid dividends to the Parent Company in the amount of 85,844,545 thousand tenge or 2,643 tenge per share (2017: 61,354,652 thousand tenge or 1,889 tenge per share).

9. HISTORICAL OBLIGATIONS

Historical obligations are denominated in US dollars and represent obligations to reimburse historical costs incurred by the Government prior to the acquisition of certain licenses by the Company: contract No. 211-23 fields, contract No. 327 – Taisogan field, contract No. 406 – Liman field, contract No. 3577 – Karaton-Sarkamys field, contract No. 992 – Novobogatinskoye Zapadnoye field. Historical obligation payments extend until 2033. The Company has discounted these obligations at an interest rate of 10% and accounts for these historical obligations at amortized cost.

10. PROVISIONS

	Environ- mental obligation	Environment emission provision	Provisions for taxes	Asset retirement obligation	Employee benefits	Total
At January 1, 2017	280,281	-	5,693,365	10,606,572	7,237,393	23,817,611
Additional provisions	6,270,054	-	-	1,655,103	277,046	8,202,203
Unwinding of discount	142,738	-	-	1,099,223	683,369	1,925,330
Changes in estimate	-	-	-	(1,254,723)	296,012	(958,711)
Utilized during the year	-	-	-	(235,434)	(807,424)	(1,042,858)
At December 31, 2017	6,693,073	-	5,693,365	11,870,741	7,686,396	31,943,575
Current portion	1,289,015	-	5,693,365	585,265	845,839	8,413,484
Non-current portion	5,404,058	-	-	11,285,476	6,840,557	23,530,091
As at December 31, 2017	6,693,073	-	5,693,365	11,870,741	7,686,396	31,943,575
Additional provisions	-	34,212,260	2,541,741	316,037	1,281,712	38,351,750
Reversal of unused amounts	-	-	(1,340,391)	-	-	(1,340,391)
Unwinding of discount	669,307	-	-	1,187,074	706,205	2,562,586
Changes in estimates	(109,116)	-	-	(1,540,967)	1,463,628	(186,455)
Utilized during the year	(1,226,239)	(8,142,619)	-	(233,167)	(1,248,693)	(10,850,718)
As at December 31, 2018	6,027,025	26,069,641	6,894,715	11,599,718	9,889,248	60,480,347
Current portion	1,499,705	26,069,641	6,894,715	991,200	873,834	36,329,095
Non-current portion	4,527,320	-	-	10,608,518	9,015,414	24,151,252
As at December 31, 2018	6,027,025	26,069,641	6,894,715	11,599,718	9,889,248	60,480,347

Environment emission provision

The provision for the environmental emissions was recognized in relation to fines and damages for violating environmental legislation based on the results of two unscheduled audits (Note 19).

Environmental obligation

In 2017 the Company has recognized an additional provision for environmental remediation related to historical contamination at the oil field in the amount of 6,270,054 thousand tenge. The amount of the provision represents present value of estimated future costs of 9,067,122 thousand tenge discounted at 10% for the period until 2023.

Employee benefits

The Company signed a collective agreement for social benefits to employees. Employee benefits are treated as other long-term payments to employees. The entitlement to these benefits is usually conditional on the completion of a minimum service period. Expected cost of these payments is accrued within working period using accounting methods similar to that used for defined benefit plan. These benefits are unfunded.

Changes in employee defined benefit obligations during 2018 and 2017 are as follows:

	2018	2017
The present value of defined benefit obligations at the beginning of a year	7,686,396	7,237,393
Current service cost	202,650	277,046
Interest cost	706,205	683,369
Actuarial losses/(gains) – recognized as income and expenses	(294,422)	15,132
Actuarial losses – recognized in other comprehensive income	1,758,050	280,880
Benefits paid	(1,248,693)	(807,424)
Past service costs	1,079,062	–
Present value of certain interest liabilities at the end of the year	9,889,248	7,686,396
Less: current portion of present value of certain interest liabilities	873,834	845,839
Non-current portion of present value of defined benefits liabilities	9,015,414	6,840,557

Amounts recognized in the statement of financial position and statement of comprehensive income are presented as follows:

	2018	2017
Present value of defined benefit obligations at the end of the year	9,889,248	7,686,396
Net liabilities	9,889,248	7,686,396
Current service cost	202,651	277,046
Interest cost	706,205	683,369
Actuarial (gains)/losses	(294,423)	15,132
Past service costs	1,079,062	–
Expenses recognised in the current year	1,693,495	975,547

The cost of current services and services of previous years is included in the statement of comprehensive income within production expenses, general and administrative expenses.

11. REVENUE

	2018	2017
Export		
Crude oil	405,660,182	289,233,248
Domestic market		
Crude oil	26,100,568	18,190,852
Gas products	193,732	16,374
Other sales and services	1,481,742	2,306,329
	433,436,224	309,746,803
	2018	2017
Geographical market		
Kazakhstan	27,776,042	20,513,555
Switzerland	405,660,182	289,233,248
	433,436,224	309,746,803

12. COST OF SALES

	Note	2018	2017
Employee benefits		48,321,372	45,473,564
Mineral extraction tax		38,382,677	27,544,373
Depreciation, depletion and amortization		19,583,791	16,987,216
Repairs and maintenance		14,307,636	10,622,288
Taxes other than income tax		4,519,290	2,073,306
Materials and supplies		3,726,813	3,392,720
Electric energy		2,992,286	2,705,124
Transportation expenses		2,722,610	1,809,989
Change in environmental obligation provision	10	(109,116)	6,270,054
Decrease in asset retirement obligation in excess of capitalized asset		(821,187)	(777,583)
Other		5,898,532	5,858,327
		139,524,704	121,959,378
Change in crude oil balance		(2,340,653)	(669,609)
		137,184,051	121,289,769

The production costs for processing of associated gas for 2018 amounted to 3,987,608 thousand tenge (2017: 2,023,563 thousand tenge).

13. SELLING EXPENSES

	2018	2017
Rent tax	63,900,063	32,583,583
Export customs duty	53,889,693	36,585,787
Transportation expenses	37,489,248	33,607,657
Sales agent's fee	218,027	214,419
	155,497,031	102,991,446

14. GENERAL AND ADMINISTRATIVE EXPENSES

	2018	2017
Fines and penalties	35,456,878	47,203
Employee benefits	4,900,339	4,017,880
Depreciation, depletion and amortization	2,150,372	3,047,606
Repairs and maintenance	485,349	432,007
Transportation expenses	445,139	299,394
Taxes other than income tax	292,128	207,647
Sponsorship	206,954	323,896
Advisory and audit services	130,646	105,677
(Reversal)/accrual of provision for doubtful debts	33,338	(144,342)
Other	997,062	2,803,263
	45,098,205	11,140,231

15. INCOME TAX EXPENSES

Income tax expenses comprised the following for the years ended December 31:

	2018	2017
Current corporate income tax	33,793,029	19,932,851
Corporate income tax adjustment	(204,009)	(178,232)
Current excess profit tax	-	3,202,977
Excess profit tax adjustment	(4,058,638)	8,036

15. INCOME TAX EXPENSES (continued)

	2018	2017
Current income tax	29,530,382	22,965,632
Deferred corporate income tax benefit	(1,449,917)	(2,266,373)
Deferred excess profit tax expense/(benefit)	1,485,795	(1,273,915)
Deferred income tax	35,878	(3,540,288)
Income tax expense	29,566,260	19,425,344

In 2018, in accordance with paragraph 2 of Article 758 of the Tax Code of the Republic of Kazakhstan for the purpose of calculating the EPT for 2017, the Company made a one-time deduction of the cumulative capital expenditures that are chargeable but not charged to deductions for the purposes of calculating the excess profit tax from January 1, 2009 to January 1, 2018.

The following table provides a reconciliation of the Kazakhstan income tax rate to the effective tax rate of the Company on profit before tax.

	2018	2017
Profit before taxation	112,955,249	75,548,374
Income tax expense	29,566,260	19,425,344
Effective tax rate	26%	26%
Income tax expenses at statutory rate	22,591,050	15,109,675
Withholding tax	210,776	-
Excess profit tax	-	3,202,977
Adjustment of excess profit tax for the previous years	(3,202,977)	-
Adjustment of deferred excess profit tax for the previous years	1,485,795	-
Adjustment of corporate income tax related to previous years	(306,758)	(170,196)
Impairment of VAT recoverable	144,562	(532,627)
Non-deductible expenses	9,396,724	1,815,515
Accrual of corporate income tax provision	102,749	-
Reversal of provision for excess profit tax	(855,661)	-
Income tax expense	29,566,260	19,425,344

The movements in the deferred tax assets relating to CIT and EPT were as follows:

	Property, plant and equipment and intangible assets	Provisions	Taxes	Other	Total
At January 1, 2017	(727,061)	4,982,983	1,768,597	851,097	6,875,616
Recognized in profit and loss	(1,440,642)	1,904,444	2,267,774	808,712	3,540,288
As at December 31, 2017	(2,167,703)	6,887,427	4,036,371	1,659,809	10,415,904
Recognized in profit and loss	(1,911,118)	(225,575)	621,026	1,479,789	(35,878)
As at December 31, 2018	(4,078,821)	6,661,852	4,657,397	3,139,598	10,380,026

16. RELATED PARTY TRANSACTIONS

The category 'entities under common control' comprises entities controlled by the Parent Company and NC KMG. The category 'other related parties' comprises entities controlled by SWF Samruk-Kazyna. Sales and purchases with related parties during the years ended December 31, 2018 and 2017 and the balances with related parties at December 31, 2018 and 2017 are as follows:

	2018	2017
Sale of goods and services		
Entities under common control	418,891,104	294,852,127
Transactions with NC KMG	14,402,922	-
Parent	11,697,646	18,184,466
Quality bank expenses on crude oil sold (Parent company)	(7,424,663)	(5,475,637)
Other related parties	34,727	13,163
Purchases of goods and services		
Entities under common control	17,396,986	19,161,798
Parent	5,311,068	16,323,595
Other related parties	1,859,124	1,174,485
Salary and other short-term benefits		
Members of the Board of Directors	54,219	52,904
Quantity	3	3
Members of the Management Board	221,277	227,602
Quantity	8	8
Trade and other accounts receivable		
Entities under common control	29,927,445	34,670,288
Parent	3,935,086	4,495,609
Other related parties	122,041	8,096
Trade accounts payable		
Entities under common control	2,100,522	2,911,805
Parent company	1,371,427	2,053,981
Other related parties	772,698	245,728

Sales and receivables

Sales to related parties comprise mainly export and domestic sales of crude oil and oil products to subsidiaries of NC KMG. Export sales to related parties represented 2,357,044 tonnes of crude oil in 2018 (2017: 2,318,046 tonnes). The sales of crude oil are priced by reference to Platt's index quotations and adjusted for freight, trader's margin and quality differentials. For these exports of crude oil the Company received an average price per ton of approximately 175,255 tenge in 2018 (in 2017: 127,095 tenge).

16. RELATED PARTY TRANSACTIONS *(continued)*

Sales and receivables *(continued)*

In addition, the Company supplies crude oil to the domestic market through NC KMG in accordance with the Resolution of the Kazakhstan Government, the ultimate controlling shareholder of NC KMG. Those supplies to the domestic market represented 492,369 tonnes of crude oil production in 2018 (in 2017: 479,064 tonnes). Prices for the local market sales are determined by agreement with NC KMG. For deliveries to the domestic market in 2018 the Company received an average price per produced crude oil tonne of around 53,010 tenge (in 2017: 37,972 tenge on average).

Purchases and payables

KMG EP is the Company's crude oil export agent. Agency commissions of the Parent for crude oil sales amounted to 218,027 thousand tenge in 2018 (2017: 214,419 thousand tenge). Transportation services, which are provided by Caspian Pipeline Consortium were reimbursed by the Parent in the amount of 10,488,635 thousand tenge (2017: 9,758,677 thousand tenge).

17. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES

The Company has various financial liabilities such as borrowings, trade and other receivables. The Company has various financial assets such as accounts receivable, short-term and long-term deposits and cash and cash equivalents.

The Company is exposed to a currency risk, credit risk, liquidity risk and commodity price risk.

Foreign currency risk

The Company's exposure to the risk of changes in foreign exchange rates relates mainly to the Company's operating activities, as the majority of its sales are denominated in US dollars whilst almost all of its costs are denominated in tenge, and to its investments denominated in foreign currencies.

The following table demonstrates the sensitivity to a reasonably possible change in the US dollar exchange rate, with all other variables held constant, of the Company's profit before tax (due to changes in the fair value of monetary assets and liabilities).

	Increase/decrease in tenge per US Dollar rate	Effect on profit before tax
2018		
US dollar	+14.00%	23,470,950
US dollar	-10.00%	(16,764,964)
2017		
US dollar	+10.00%	16,599,170
US dollar	-10.00%	(16,599,170)

Credit risk

The Company is exposed to credit risk in relation to its receivables. The Company's vast majority of sales is made to an affiliate, NC KMG, and the Company has a significant concentration risk of the receivable from this affiliate (*Notes 6 and 16*). Additional number of minor receivables are grouped into homogeneous groups and assessed for impairment collectively on an ongoing basis with the result that the Company's exposure to bad debts is not significant.

The Company is also exposed to credit risk in relation to its investing activities. The Company mostly places the deposits with Kazakhstan banks. Credit risk from balances with financial institutions is managed by the Company's treasury department in accordance with the Parent's cash management policy. The Company's maximum exposure to credit risk arising from default of the financial institutions is equal to the carrying amounts of these financial assets.

The table below shows the balances of the financial assets held in banks at the reporting date using the Standard and Poor's credit ratings, unless otherwise stated.

Banks	Location	Rating ¹		2018	2017
		December 31, 2018	December 31, 2017		
Halyk Bank JSC	Kazakhstan	BB (stable)	BB (negative)	149,038,765	103,369,357
ATF Bank JSC	Kazakhstan	B (negative)	B (negative)	412,557	369,616
Qazkom JSC	Kazakhstan	Not applicable	B+(positive)	-	33,503,349
				149,451,322	137,242,322

¹ **Source:** official sites of banks and rating agencies as at December 31 of the respective year.

Liquidity risk

The Company monitors its liquidity risk using a recurring liquidity planning tool. This tool considers the maturity of both its financial investments and financial assets (e.g. accounts receivables, other financial assets) and projected cash flows from operations.

The Company's objective is to maintain a balance between continuity of funding and flexibility through the use of short and long-term deposits in local banks.

The table below summarizes the maturity profile of the Company's financial liabilities at December 31, 2018 and 2017 based on contractual undiscounted payments

At December 31, 2018	On demand	Less than 3 months	3-12 months	1 year-5 years	Over 5 years	Total
Historical obligations	-	796,317	589,023	2,511,819	9,762,312	13,659,471
Trade and other accounts payable	28,905,666	-	-	-	-	28,905,666
	28,905,666	796,317	589,023	2,511,819	9,762,312	42,565,137

17. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES *(continued)*

Liquidity risk *(continued)*

At December 31, 2017	On demand	Less than 3 months	3-12 months	1 year – 5 years	Over 5 years	Total
Historical obligations	-	638,576	1,915,728	1,809,939	1,008,339	5,372,582
Trade and other accounts payable	22,816,671	-	-	-	-	22,816,671
	22,816,671	638,576	1,915,728	1,809,939	1,008,339	28,189,253

Commodity price risk

The Company is exposed to the effect of fluctuations in the price of crude oil, which is quoted in US dollars on international markets. The Company prepares annual budgets and periodic forecasts including sensitivity analyses in respect of various levels of crude oil prices in the future.

Capital management

The Company follows the objectives, policy or processes of capital management of the Parent Company. To maintain or adjust the capital structure, the Company may adjust the dividend payment to shareholders, return capital to shareholders, issue new shares or obtain financing from the Parent Company.

18. FINANCIAL INSTRUMENTS

The fair value of financial instruments such as short-term trade receivables, trade payables and historical obligations approximately equals to their carrying value.

As at December 31, 2018 and 2017, the Company did not have any financial instruments classified as financial instruments of 1 or 2 levels.

For the years ended December 31, 2018 and 2017 there were no transfers between Levels 1, 2 and 3 of the financial instruments' fair value.

19. COMMITMENTS AND CONTINGENCIES

Operating environment

The Republic of Kazakhstan continues economic reforms and development of its legal, tax and regulatory frameworks as required by a market economy. The future stability of the Kazakhstan economy is largely dependent upon these reforms and developments and the effectiveness of economic, financial and monetary measures undertaken by the government.

Domestic market obligations

The Kazakhstan government requires oil producers to supply a portion of their crude oil production to meet domestic energy requirements.

Starting from April 1, 2016 the Company ceased sales of crude oil to "KazMunayGas – Refinery and Marketing" JSC and sold oil to the Parent Company. The Company started selling crude oil to NC KMG from July 1, 2018 based on the contract for oil procurement.

If the Government does require additional crude oil to be delivered over and above the quantities currently supplied by the Company, such supplies will take precedence over market sales and will generate substantially less revenue than crude oil sold on the export market, which may materially and adversely affect the Company's business, prospects, financial condition and results of operations.

Taxation

Kazakhstan's tax legislation and regulations are subject to ongoing changes and varying interpretations. Instances of inconsistent opinions between local, regional and national tax authorities are not unusual, including opinions on approaches to revenue, expenses and other items of the financial statements. The current regime of penalties and interest related to reported and discovered violations of Kazakhstan's tax laws are severe. Because of the uncertainties associated with Kazakhstan's tax system, the ultimate amount of taxes, penalties and interest, if any, may be in excess of the amount expensed to date and accrued at December 31, 2018.

The management believes that its interpretation of the tax legislation is appropriate, and the Company has acceptable grounds for the tax position.

VAT recoverable

In November 2018, in accordance with the act of audit by the Tax Authority for the Atyrau Oblast, an excess of the amount of VAT generated for 2017 was returned to the Company from the budget in the amount of 2,221,343 thousand tenge (2017: 8,261,185 thousand tenge).

The balance of provision for VAT recoverable as at December 31, 2018 is 5,039,434 thousand tenge (2017: 5,038,963 thousand tenge).

19. COMMITMENTS AND CONTINGENCIES *(continued)*

Environmental obligations

The enforcement of environmental regulation in Kazakhstan is evolving and subject to ongoing changes. Penalties for violations of Kazakhstan's environmental laws can be severe. Besides the amounts disclosed in *Note 10*, the management believes that there are no probable environmental liabilities that may have a material adverse effect on the Company's financial position, operating performance and cash flows.

Environmental audit

On July 23, 2018, Embamunaigas JSC received a resolution from the Department of Ecology of the Atyrau Region to pay a fine in the amount of 8,908,222 thousand tenge for violations of environmental legislation, which were identified as part of an unscheduled environmental audit conducted in April–June 2018. This fine was associated with emissions of harmful substances above the established standards as a result of gas flaring in the period from November 1, 2017 to June 12, 2018. On September 17, 2018, the Atyrau Regional Court decided to reduce the amount of the fine to 6,681,703 thousand tenge. On October 19, 2018, the Company fully paid this fine to the state budget.

In addition, on the above fact, on September 24, 2018, the Department of Ecology in the Atyrau region issued an order to Embamunaigas JSC to compensate for environmental damage in the amount of 7,835,414 thousand tenge. On January 30, 2019, the Specialized Interdistrict Economic Court of the Atyrau Region ruled to satisfy the claim of the Department of Ecology for the Atyrau Region to recover damage to the environment in the amount of 7,835,414 thousand tenge.

On October 18, 2018, Embamunaigas JSC received a resolution from the Department of Ecology of the Atyrau Region to pay a fine in the amount of 6,861,703 thousand tenge for violation of environmental legislation following the second unscheduled audit for the period from June 12, 2018 to October 10, 2018, as well as October 26, 2018, the Department of Ecology for the Atyrau region, based on the results of the re-audit of Embamunaigas, issued an order to compensate for damages amounting to 6,032,506 thousand tenge, caused during the specified period.

In December 2018, Embamunaigas JSC completed commissioning works and commissioned an associated gas processing facility. In this connection, the management of Embamunaigas JSC does not expect further violations of environmental legislation regarding gas flaring.

According to the results of two unscheduled audits, the Company accrued a provision in the amount of 27,428,376 thousand tenge. Also, provisions of 6,783,884 thousand tenge were accrued for the expected administrative fines and environmental damage for the period October–December 2018 (*Note 10*). Currently, the Company is carrying out a claim-related work to appeal against fines and environmental damage.

Oilfield licenses

The Company is subject to periodic reviews of its activities by governmental authorities with respect to the requirements of its oilfield licenses and related subsoil use contract. Management cooperates with governmental authorities to agree on remedial actions necessary to resolve any findings resulting from these reviews. Failure to comply with the license provisions may result in fines, penalties, restriction, suspension or withdrawal of the license.

The Company's management believes that any issues of non-compliance will be resolved through negotiations or corrective actions without any material effect on the Company's financial position, operating performance and cash flows.

The Company's oil and gas fields are located on land belonging to the Atyrau district administration. The licenses are issued by the Ministry of Oil and Gas of the Republic of Kazakhstan and the Company pays mineral extraction tax and excess profits tax to explore and produce oil and gas from these fields.

The principle licenses of the Company and their expiry dates are:

Field	Contract	Expiry date
Kenbai	No. 37	2041
South-East Novobogatinskoe	No. 61	2048
23 fields	No. 211	2037
15 fields	No. 413	2043
Taisoigan	No. 327	2035
West Novobogatinskoe	No. 992	2027
Liman	No. 406	2033
Karaton-Sarkamys	No. 3577	2020

Commitments arising from oilfield licenses

Year	Capital expenditures	Operating expenses
2019	55,268,060	2,781,528
2020	1,160,466	2,782,948
2021	1,095,018	1,282,964
2022–2048	1,095,018	1,580,085
	58,618,562	8,427,525

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