



# KARACHAGANAK SUSTAINABILITY REPORT 2009

THE ENDURING BENEFITS  
OF KARACHAGANAK



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### Our commitment to sustainable development

Our commitment to sustainable development is defined in our Sustainability Charter. We take as our reference the Brundtland Commission's widely acknowledged definition of sustainable development as «development that meets the needs of the present without compromising the ability of future generations to meet their own needs».

- As a business, KPO considers its contribution to sustainable development to be:
- ◆ minimising impacts and maximising opportunities linked to its presence;
  - ◆ considering the long-term consequences of its decisions;
  - ◆ engaging its stakeholders in a constructive dialogue; and
  - ◆ incorporating strong governance and transparency

This is the second sustainability report issued by Karachaganak Petroleum Operating B.V. (KPO), and is a demonstration of our commitment to sustainable development. Last year, we became the first company based in Kazakhstan to produce an independently assured sustainability report to international standards. In the sustainability area, we aim to continue to build on this record.

### REPORT PROFILE

This report is for the 2009 calendar year. It also includes information relating to 2007 and 2008, in order to allow an informed evaluation of our performance over the years. We intend to issue sustainability reports annually.

### REPORT SCOPE AND BOUNDARIES

This report includes KPO's activities as described in the section 'Operating Karachaganak'. The content covers the most material aspects of our environmental, social and economic performance.

### ASSURANCE

The data in this report has been independently assured by PricewaterhouseCoopers; their independent assurance report is included on page 42. This process provides both KPO and the reader

of the report with additional assurance that the data contained within is accurate.

### GLOBAL REPORTING INITIATIVE

This report has been produced in line with the Global Reporting Initiative's G3 guidelines, the *de facto* global model for sustainability reporting. We have kept a C+ application level for 2009 but are aiming for a B+ application level for the 2010 report.

### STAKEHOLDERS

As part of our normal business practice, we engage and consult with a wide range of stakeholders, including the government, the local community, employees and civil society. Good relationships with these stakeholder groups are essential to our long-term success, and input from our dialogue with them has helped to shape the content of this report.



# Letter from the General Director



2009 was a year of achievements mixed with sadness. KPO achieved record production and record gas utilisation, commissioned a state-of-the-art Eco-Centre and received OHSAS 18001 accreditation. Nevertheless, despite also having achieved a safety record of 43 million man-hours without a lost time incident in the first half of 2009, the fatal accident that occurred on 19 December, when one of our contractors was killed, brought sharply into focus the need for all of us to remain vigilant and not become complacent as a result of past success. Following the fatality, immediate actions to prevent recurrence were put in place throughout KPO. Both myself and the KPO Management Team are committed to KPO learning from this accident to ensure that it does not happen again.

Our investment in people has continued through tailored training programmes and the development of the new ten-year Nationalisation Plan. At the end of 2009, all of the skilled and clerical positions, 87% of the professional and supervisory roles, and 49% of the managerial positions in KPO were filled with national staff.

KPO continues to encourage Kazakhstan's businesses to participate in the development of the Karachaganak field. KPO, jointly with other operators in Kazakhstan, the local authorities, KazMunaiGaz and national and local business organisations, has been active in pursuing this challenging goal. The result in 2009 was that 49% of the value of all goods and services used by KPO were placed with Kazakhstan businesses.

In the field of social infrastructure development, KPO recently completed the first section of the Karachaganak-Uralsk gas pipeline. When the entire pipeline system is complete, it will deliver natural gas to over 150 settlements in the West Kazakhstan Oblast. In recognition of its wider commitment to social responsibility, KPO received both the Paryz Award and Atameken medal.

As the Phase IIM development stage draws to a close, the alignment between the Kazakhstan authorities, KPO and its parent companies over the past 13 years has allowed the development of Karachaganak to proceed successfully and has also helped lay the foundation for the field's future development. KPO is committed to sustainable development, and I look forward to reporting our continued progress in next year's report.

Giuseppe Pasi  
General Director

When I signed the KPO Sustainability Charter in 2009, one of the commitments I made was that KPO would produce an annual sustainability report for our stakeholders in which we would provide a full and honest review of our performance. It therefore gives me great pleasure to enclose the 2009 Sustainability Report, the second such report that KPO has issued, which builds on the work that the company started in 2008.

The intent of this report is to inform our stakeholders – who comprise various authorities of the Republic of Kazakhstan, our employees, the local communities where KPO works and society in general – about our performance in 2009 and our progress against the targets we set for ourselves in 2008. In this report, we will also define new targets that will guide our activities in 2010.

Sustainable development has become an integral part of the way KPO does business in Kazakhstan. Our partnerships with the republic and with national oil company KazMunaiGaz enable us to align our business with government objectives, which are to ensure that developing the republic's natural resources provides sustainable advantages for the country as a whole. KPO's contribution to sustainable development is focused on maintaining world-class health, safety and environmental practices, applying robust corporate governance principles, adopting the best technologies in our operations, and enhancing our programmes for nationalisation, local content and contributions to social development.



# Our Performance and Targets

## HEALTH AND SAFETY

Our targets in 2009	Actions taken in 2009	Our targets for 2010
Achieve OHSAS 18001 certification for our Occupational Health and Safety Management System.	✓ OHSAS 18001 Certification obtained	• Maintain OHSAS Certification
Review and upgrade the hazard identification, management and reporting process.	✓ Hazard Reporting procedure updated and rolled out with a new tracking register.	• Complete rationalization and improvement of the current hazard identification reporting processes.
Improve the efficiency and application of our behaviour-based safety system.	✓ Schedule of Management HSE Tour placed on Intranet for easy access.	• Train KPO employees and contractors on hazard awareness.
Develop and enhance our medical and emergency response capabilities.	~ 6 BBS Committees has been successfully established	• Implement a programme of training and exercises to improve Level II and III emergency response and improve oil spill containment measures.
	✓ New Incident Management Centre opened	• Improve the understanding, visibility, involvement and value of safety leadership within KPO
	~ Emergency Response procedures updated	• Improve of contractor HSE performance to achieve an alignment with KPO expectations and contractor practices and performance.
	✓ Additional training delivered to all levels, including Incident Management Team and Company Directors	• Improve the effectiveness of current monitoring and management review methods and processes.

## ENVIRONMENT

Reduce emissions of greenhouse gases year-on-year against a normalised baseline.	✓ 171.4 ktonnes CO2e GHG reduction achieved	• Achieve GHG reduction of 55,5 ktonnes CO2e as stretch.
Minimise water use and waste water generation, prevent pollution from waste water, and maximise water reuse.	✓ Water consumption for KPO technical needs reduced by 17%	• Commence Field wide wastewater treatment upgrade project.
	✗ 42,000 cubic metres of water recycled (slightly lower than 2008)	• Update Corporate Waste Strategy.
Improve waste management in line with the waste hierarchy.	✓ Eco Centre on stream (100 % of the spent oil drilling mud is reused for preparation of fresh drilling mud at the Liquid Mud Plant)	• Complete construction of permanent waste landfill
	~ Memorandum signed with Pavlodar Cardboard Factory for paper waste accepting and recycling	• Implement secondary raw materials segregation project (paper and plastic waste)
Maintain and enhance the biodiversity value of the Karachaganak field.	~ Two Biodiversity research project progressed	• Issue Biodiversity Standard
	~ Biodiversity and Ecosystem Services Risk Assessment and Action Plan discussed with Partners	• Issue Biodiversity and Ecosystem Services Risk Assessment and Action Plan
Maintain third party certification of our ISO 14001 compliant Environmental Management System.	✓ Karachaganak Projects Development Ltd (KPO's Capital Projects division) added to the scope of the certification in September	• Maintain third party certification of EMS. Complete two Surveillance Audits
	Two Surveillance Audits successfully completed	

## OUR PEOPLE

Implement competency assurance and assessment programmes through all KPO departments.	~ Competence Management System for non technical jobs finalised	• Expand the Competence Management System (achieve 75% implementation)
	✓ 24 senior positions nationalised	• Develop and implement professional development program for Engineers
Continue to train and develop national staff to enhance nationalisation	✓ 250,000 hours of training delivered to national staff for an average 67 hours of training per employee	• Launch OPITO Professional Development scheme for existing technical workforce (Technicians / Operators)
	✓ 2009 Personal Development Review Completed	• Implement T&D Plan for KPO national workforce
	✓ Launch of the Safety Training and Enhancement Programme	
Continue to maintain KPO as the employer of choice in West Kazakhstan.	✓ National Paryz Award received for the Best Collective Agreement	
	✓ Sponsorship of the Youth Forum in Uralsk (WKO)	
	✓ Employee survey conducted	

## ECONOMIC DEVELOPMENT

Continue to meet the Republic's targets for employee localisation.	✓ First ten year Nationalisation targets met	• Continue with the nationalisation programme so to achieve results planned for 2010: – Category 1 – 58% – Category 2 – 89%
	✓ Next ten year Nationalization Plan agreed with the Authorities	• Maintain stable increase of purchase of goods and services from Kazakhstani origin for operational needs of KPO.
Develop KPO's capability for improving the competitiveness of local companies, to create a stable economic platform for long-term commercial operations.	✓ Local Content Office set up in regional capital town Uralsk and plan of workshop with contractors implemented	• Ensure contractors deliver to specified standards in safety and quality
	✓ Ten WKO based companies supported for integrated implementation of ISO 14001 and OHSAS 18001	
Increase KPO's purchase of goods, works and services of Kazakhstani origin for operational needs.	~ Memorandum of Understanding signed with main WKO manufacturers	
	✓ 49% of local content achieved overall	
Contribute to continued stable social-economic development.	~ Formal multistakeholder working group established at WKO level	

## COMMUNITY

Maintain and enhance community engagement.	✓ 22 Village Councils held and 4 Public Hearings on new projects	• Issue and implement Social Performance Plan and Social Investment Strategy
	✓ Social Baseline Assessment completed	• Launch the KPO Rural Development Programme
	~ Community representatives consulted on improvement of the Grievance Procedure	• Issue an updated Grievance Procedure
Develop and implement a social investment strategy and social performance plan.	✗ Social Performance Plan developed. To be issued in 2010	



# Operating Karachaganak

The Karachaganak field is one of the world's largest oil and gas condensate fields. Located in north-west Kazakhstan and covering an area of more than 280 square kilometres, it holds an estimated 9 billion barrels of condensate and 48 trillion cubic feet (tcf) of gas. To date, around 7-8% of the recoverable hydrocarbons initially in place have been produced.

The Karachaganak field is located in a remote and challenging working environment, where the ambient temperature ranges from minus 40 degrees Celsius in winter to plus 40 degrees in summer. The field, the top of which is located at a depth of around 3,500 metres, is some 1,600 metres thick and very complex. The hydrocarbons contain up to 4.5% of highly toxic hydrogen sulphide, as well as carbon dioxide which can, in certain conditions, be highly corrosive.

Since 1997, the Karachaganak field has been developed and operated by KPO, a partnership between four international oil companies: BG Group and Eni (joint operators with 32.5% holding each), Chevron (20% holding) and LUKOIL (15% holding).

In 1997, the Partners signed a Final Production Sharing Agreement (FPSA) with the Republic of Kazakhstan that places responsibility for field development with KPO until 2038. The Partners pool their combined international experience to share with the Republic so that the maximum value can be realised from the Karachaganak field.

More than 4,000 people work in KPO today to form a talented and multicultural team. Since the signing of the FPSA, KPO has invested approximately USD 14 billion into developing the field, applying industry leading technology aimed at maximising sustainable economic value.

Due to Karachaganak's remote location, most of the hydrocarbons produced are exported. Around 80% of the production is exported as

stabilised oil to western markets via the CPC pipeline to Novorossiysk on the Black Sea and the Atyrau–Samara pipeline to the Transneft system, for onward shipment to Primorsk on the Baltic Sea and other European destinations. The remaining liquids are exported as unstabilised condensate to Russia via Orenburg. Virtually all of the gas that is produced from the field is either sold as sour gas to Russia, or re-injected into the reservoir to help maintain reservoir pressure. A small percentage of the gas is sweetened, to remove the hydrogen sulphide before it is used either to generate electricity or provide heating. Approximately 0.14% of the produced gas is flared in normal production and drilling operations. More details on gas utilisation at Karachaganak can be found in the section Delivering environmental performance on page 16.

Achievements obtained by deploying advanced technology include:

- ◆ developing an innovative high-pressure, high-volume sour gas re-injection system;
- ◆ drilling the deepest multilateral wells in Kazakhstan to date;
- ◆ reducing Greenhouse Gas (GHG) emissions from well testing and operations through the pioneering use of a well-testing equipment and Dry Low NOX (DLN) tuning of gas turbines.

For a description of the field layout, please see page 22.



## 2009 OPERATIONS AND FUTURE GROWTH OPPORTUNITIES

In 2009, KPO produced 139.4 million barrels of oil equivalent in the form of stable and unstable liquids, sour gas, and sweet gas for use as fuel. This was an increase of about three million barrels of oil equivalent as compared to 2008. In addition, 6,589 million cubic feet of sour dry gas was injected into the reservoir, a volume equivalent to approximately 42% of the total gas produced.

The principal development activities that KPO undertook in 2009 were to:

- ◆ drill nine wells and continue its programme of well workovers to optimise production and injection well stock in the field;
- ◆ continue the construction of the fourth liquid stabilisation train at KPC;
- ◆ continue the capital works planned to upgrade asset integrity;
- ◆ continue the de-bottlenecking of the production facilities installed during Phase II / IIM (Maintenance); and
- ◆ develop the strategy for Phase III, the next Karachaganak development phase. This strategy is being reviewed by the authorities.

## 2009 PRODUCTION

Global Production	Mboe	139.4
Unstable Liquids <i>Condensate to Orenburg Gas Plant and Mini Refinery</i>	kt	2,295
Stable Liquids <i>Oil and stabilised condensate to CPC and KTO-Samara</i>	kt	8,607
Raw gas <i>To Orenburg Gas Plant</i>	Mscm	8,266
Sweet gas production <i>Providing energy for the plant and the community</i>	Mscm	686
Gas injection <i>Not included in Global Production as this is not sold</i>	Mscm	6,589





# Corporate Governance at KPO

Good governance is essential for ensuring the sustainability of large-scale investments. In the more complex environment of a joint venture such as KPO, our strong governance, controls and assurance processes are vital to our ongoing success.

## ORGANISATION AND GOVERNANCE STRUCTURE

Our organisational structure has been designed to help us meet our business objectives and fulfill our obligations to the Kazakhstan authorities as set out in the FPSA, the venture's governing document.

KPO's most senior governance body is the Joint Operating Committee, which comprises representatives of the four parent companies and the Kazakhstan authorities.

KPO's most senior partner body, the Contractors Committee, comprises representatives of the four parent companies. KPO's most senior executive officer, the general director, represents the operating companies, BG Group and Eni, at the Contractors Committee.

The general director is a member of, and works with, the Operating Committee, which reports directly to the operating companies, BG Group and Eni. The general director, the deputy general director and other directors are nominated by the Operating Committee.

The tenure of any KPO director is three years. In October 2009, an Eni general director took over from his BG Group predecessor, and a BG Group deputy general director replaced his Eni predecessor. Two new directorships were created to fit the evolving nature of the business: the Government Relations Directorship, first director position to be held by a national senior, and the Project Execution Directorship, to increase KPO's efficiency in project delivery.

## MANAGEMENT SYSTEMS

KPO's commitment to high standards is implemented through policies, processes and practices. These are embedded in our management systems and include our Code of Conduct, our Health, Safety and Environment (HSE) Management System, our HSE Policy and five year Strategic HSE Plan, our Operations Management System and our Corporate Management System Manual.

In 2009, following intensive work conducted by the Operators Sustainability Working Group, KPO issued its Sustainable Development Charter. This charter is intended to lay the foundations and set the guiding principles for KPO's efforts towards sustainable development; it is drawn from international best

practice and the operating companies' experience. The KPO **Sustainable Development Charter** is available at [www.kpo.kz](http://www.kpo.kz) and on the company's intranet portal.

## ASSURANCE

All these systems and policies are subject to audits, which provide assurance to KPO management and the four parent companies that effective and efficient processes are in place to identify and manage risk, including sustainability risk, and to ensure compliance with approved processes. Internally, assurance activities are undertaken by a number of groups, including the internal corporate audit group, which audits all of KPO's activities. Specific areas are identified for audit each year using KPO's internal risk identification system, discussions with directors, parent company requests and the Audit Model, which details KPO process areas and the required audit frequency for each area.

In addition to internal assurance processes, our HSE Management System is externally certified to ISO 14001, the internationally recognised Environmental Management System standard. In 2009, we achieved OHSAS 18001 certification for the occupational health and safety aspects of our management system.

External assurance reviews also occur on a regular basis, including reviews by the parent companies to ensure compliance with their standards and industry best practices, and regulatory reviews to ensure compliance with Republic of Kazakhstan legislation.

## COMPLIANCE FRAMEWORK

Following the 2008 Parent Company Audit on Compliance, KPO undertook a review of the Code of Conduct and associated documents. As a result of this review, KPO's compliance structure was updated and now comprises a framework of specific documents, policies and procedures. The Compliance Framework regulates and provides guidance on all aspects of compliance throughout the company and establishes KPO's fundamental values and core beliefs, cascading and applying these throughout the organisation.

The main point of reference within the Compliance Framework is the Code of Conduct. This establishes the core principles, values and behaviours that govern how KPO conducts its business. The revised code

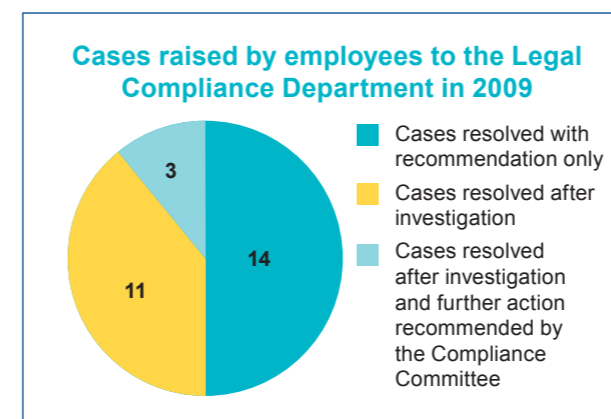
was launched in early 2009 by the general director, and all KPO personnel are obliged to read it. The same also applies for the Conflict of Interest Policy, which was also revised and released at that time.

Should any employee have a grievance or dispute within KPO, the Grievance Handling Procedure details the procedure to be followed.

The Compliance Framework is within the control of the Compliance Department. A KPO's Compliance Committee, chaired by the general director, meets quarterly to review all matters relating to compliance.

To increase awareness and achieve effective delivery and monitoring of KPO's Compliance Framework, each directorate and department has a designated Compliance Representative. In 2009, the Compliance Department delivered compliance awareness training to compliance representatives.

Any concerns regarding an actual or suspected breach of the Compliance Framework can be reported to the Legal Compliance Department. All such instances are reported to the Compliance Committee, which will decide whether an investigation is warranted and, if so, set its terms of reference. Once the investigation is complete, the Compliance Committee decides whether the complaint is upheld and what action, if any, is required. Since the launch of the updated Code of Conduct, 28 employees have raised personal concerns or complaints with the Legal Compliance Department.



In 14 cases, individual employees accepted the Legal Compliance Counsel's recommendations, and no further action was required. The other 14 cases were investigated and resolved with the support of the HR Department. Three of these cases resulted in further action being recommended by the Compliance Committee and were resolved satisfactorily. The nature of the concerns covered behavioural issues,

conflicts of interest, issues related to religion, labour relations, violations of policy, interpersonal relationships and employment processes.

## HUMAN RIGHTS

KPO supports the protection of human rights in its sphere of influence. This commitment is stated in the KPO Code of Conduct. KPO voluntarily tested its compliance with international standards and best practices in 2008 with the support of the Danish Institute for Human Rights and received a good assessment. In 2009, following the Institute's recommendations, the Voluntary Principles on Security and Human Rights were included in the new Security Master Plan, and more focus was given to vulnerable groups in consultations and social investments. In the field of diversity management, KPO is running a leading Intercultural Competence Development Programme.

## EXTRACTIVE INDUSTRIES TRANSPARENCY INITIATIVE

All four partners in the KPO venture are signatories to the Extractive Industries Transparency Initiative in Kazakhstan and support the efforts of the government and society to strengthen governance of the revenues generated by the extractive industry by improving transparency and accountability.

Each year, the partners in the KPO venture report to the EITI consolidating body the amounts they have each paid to the Republic.

## PROMOTION OF THE KAZAKH LANGUAGE

KPO's official working languages are English and Russian, but increasing attention is being paid to develop and enhance the use of the Kazakh language. A language project team was created in KPO and staffed with professional Kazakh/Russian/English language translators. Messages which are of general interest to staff are issued in the three languages; these include messages about safety, the HSE Policy, the Sustainability Charter, the KPO website and this report. The Karachaganak Newsletter, the company magazine that reaches out to employees and a wide variety of stakeholders, includes a section in Kazakh, which KPO is planning to expand. Support is given to the TV programme «Learn Kazakh with us», organised in WKO. In 2009, a language workshop, round table discussion and a competition were held among employees and a trilingual technical glossary was completed and made available across the company. Kazakh language courses are available for employees.



# Health, Safety and Security

At KPO, safety is at the core of everything we do. Developing and operating a field of Karachaganak's technical complexity requires every employee and contractor to keep safety in mind at all times. All oil and gas operations carry inherent safety risks: at Karachaganak, this challenge is compounded by extreme temperature fluctuations, the high hydrogen sulphide content in the hydrocarbons we produce and process, and high-pressure sour gas injection.

## MANAGEMENT APPROACH

KPO has developed an integrated HSE Management System to provide the framework necessary to meet targets for safety, health and environmental performance, control risks and encourage continual HSE improvement. HSE Management System requirements are described in the HSE Management System Manual, which has been rolled-out across the company. Senior management's commitment to improving HSE performance at KPO is expressed in the HSE Policy, which was revised in 2009 and endorsed by the general director. The HSE Policy clearly states that KPO is fully committed to pro-actively managing health, safety and environmental protection and expects everyone to recognise their personal responsibility for HSE and their right to openly report any HSE issues of concern.

This policy applies to all assets owned and operated by KPO and all personnel operating for or on behalf of KPO, including contractors and visitors.

In October 2009, KPO obtained OHSAS 18001:2007 certification for its Occupational Health and Safety Management System. Compliance with the requirements set by the OHSAS 18001:2007 was verified by a certification audit performed in August and September 2009. OHSAS 18001 certification followed ISO 14001 certification of KPO's Environmental Management System in 2008. KPO's commitment to developing and implementing an HSE management system certified to international standards demonstrates KPO's continuing desire to strive for recognised operational excellence.

Risk management is an important activity at KPO. We adopt advanced risk analysis techniques and identify risk reduction measures for each KPO facility within the Karachaganak Field.

## SAFETY CULTURE

Raising and enhancing safety awareness and continuing to develop a safety culture within the organisation is an area of significant focus and effort. In 2009, KPO launched the Lifesavers Campaign.



It is based on a series of minimum mandatory safety expectations identified for seven high-risk activities. These mandatory expectations underpin KPO's Golden Rules and reflect experience gained from incidents at Karachaganak, at our parent companies and across the oil and gas industry.

The HSE intranet page was completed in 2009 to provide KPO employees with quick and easy access to HSE functions and relevant supporting personnel, along with a series of materials providing information on key HSE issues.

Enhancing the culture of safety also extends to the communities around KPO. Company specialists run a popular radio programme in cooperation with a local network covering a variety of health, safety and environment issues which are of benefit and general interest to the local community. Topics include electrical safety, fire protection, grass fires, high blood pressure, and more.

## SAFETY PERFORMANCE IN 2009

On 21 March 2009, KPO reached one year of operations without a Lost Time Incident (LTI), an achievement accomplished during a 12-month period in which a total production shutdown took place and there were record levels of production. In July 2009, we achieved another landmark in KPO history when we surpassed 40 million man-hours without an LTI.

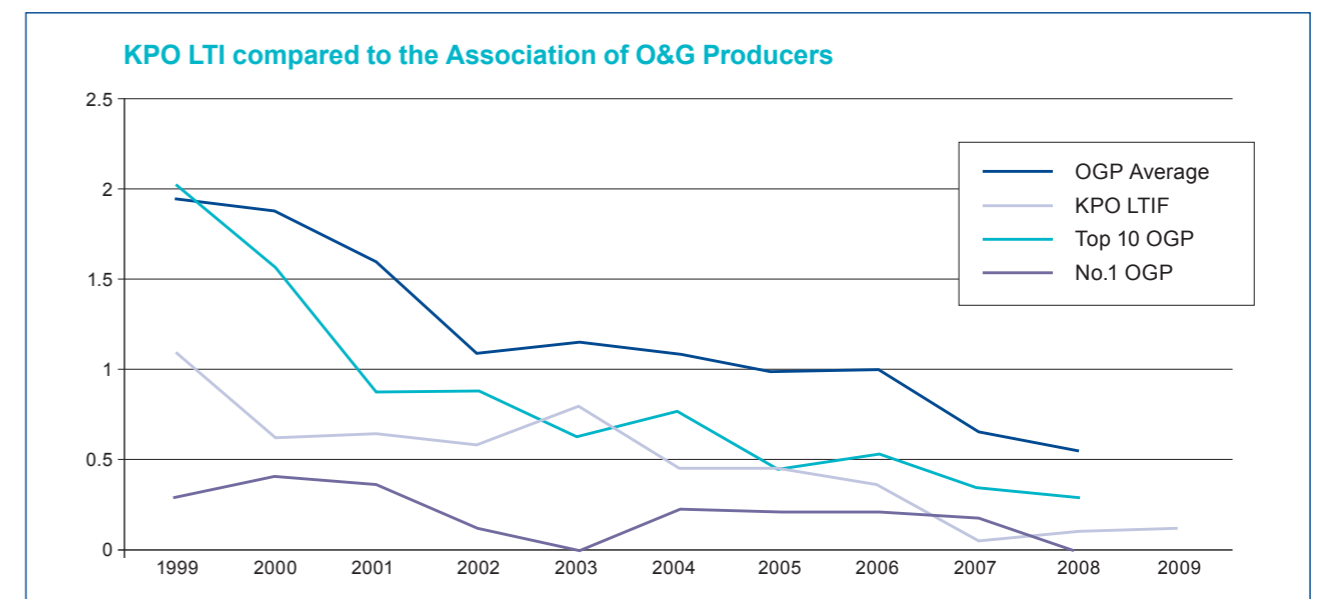
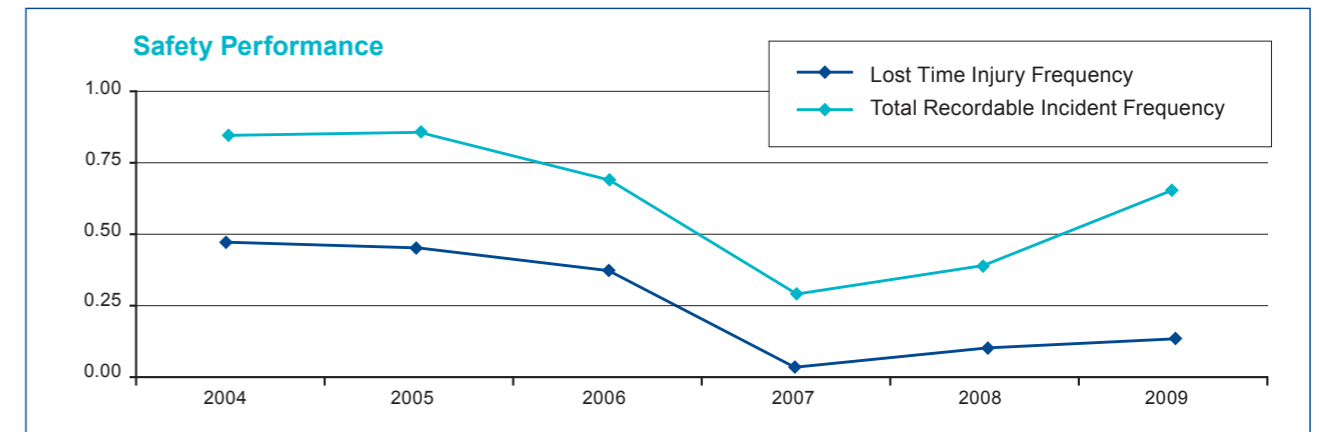
KPO's overall safety performance for 2009 and the previous five calendar years is presented in the graph below. The graph shows that the overall Lost Time Injury Frequency for 2009 was 0.13 (0.11 in 2008) and Total Recordable Injury Frequency (TRIF) (recordable injuries per million hours worked) was 0.65 (0.40 in 2008).

Despite the commitment and continued effort throughout the company to improve our safety

performance, we experienced a deterioration in the second half of 2009. Sadly, on 19 December 2009 we had to register the death of one of KPO's contractors.

As with all incidents at KPO, each LTI was thoroughly investigated by an internal investigation commission whose members were drawn from departments that were not associated with the incident. Action plans to prevent recurrence were developed, agreed and implemented. Closure of the actions recommended following investigations are tracked on KPO's electronic tracking database.

Given the trend of deteriorating safety performance, a company-wide safety stand-down was undertaken on 12 November 2009. This involved stopping work at all sites and in all offices across the company so that an appropriate safety message could be delivered and to hold discussions with staff.

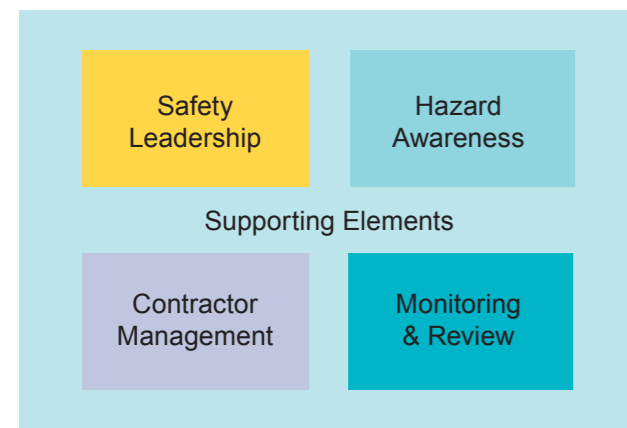


The immediate response following the fatality was to suspend all similar activities until an initial review had been completed. An Incident Review Report was prepared and a series of meetings to communicate the key findings were held with KPO personnel, contractors and stakeholders. A rigorous action plan to refocus the company's safety culture was developed and is being implemented across the company.

During 2009, KPO's LTI frequency (LTIF) (number of incidents per million man-hours worked) for the last 10 years was benchmarked against the International Association of Oil & Gas Producers (OGP) data. The comparison shows that through 2008, KPO's LTIF performance has been significantly better than both the industry average and the average for the top 10 OGP companies. At the time of writing, OGP data for 2009 were not available.

#### 2010 SAFETY PLAN

KPO is dedicated to improving its safety record and ensuring that our employees do not suffer harm on the job. KPO's 2010 Safety Plan was developed at the end of 2009 to address the challenges identified in connection with the company's deteriorating safety performance in the second half of 2009. The plan complements KPO's existing five-year strategic HSE plan and focuses on four key areas of improvement: safety leadership, contractor management, hazard awareness, and monitoring and measurement. The plan sets strategic objectives and one-year targets, with



specific actions and responsibilities assigned to each. To ensure continual improvement of KPO's overall HSE Management System, the key focus areas are supported by additional elements such

as emergency preparedness, risk management, training and competence, and communication.

Other improvements introduced to support safety performance in 2009 were related to emergency preparedness and included the opening of a new state-of-the-art Incident Management Centre. In order to ensure continued and effective leadership during crisis management, an emergency response and crisis communications training was also held for new directors and controllers.



In relation to training and competence, a robust new Safety Training and Enhancement Programme (STEP) was launched with the aim of upgrading the existing knowledge and skills of KPO HSE personnel to meet internationally certified standards. The programme has been designed in line with the Republic of Kazakhstan government's strategy to harmonise its legal system with international HSE standards. STEP also meets the requirements of the Institute of Occupational Safety and Health (IOSH) and includes a vocational on-the-job programme specifically developed for KPO HSE professionals. The first group of 14 HSE supervisors commenced the STEP programme in December 2009. Over 120 HSE employees are due to complete the programme in 2010, and it is intended that all KPO personnel involved with HSE will receive professional development under the STEP programme.

#### ROAD SAFETY

KPO operates in a remote location and, consequently, its employees and contractors have to travel long distances to go about their work. Mitigating the risks associated with road travel therefore remains a high priority for KPO.

Several initiatives have been undertaken to improve KPO drivers' ability to drive safely, even in harsh conditions. These vary from dedicated safe driving courses to safe driving observation cards which are provided to passengers. These initiatives are believed to have supported the decrease in the Road Traffic Incident Frequency (road traffic incidents per million kilometres driven) from 0.06 in 2008 to 0.04 in 2009.

Road safety in the local community is also an area of concern for KPO. Since 2007, KPO has run road safety campaigns within the community to enhance road safety awareness. The campaign includes a radio phone-in quiz, an annual art competition to design road safety pictures for use as billboards and presentations at schools supported by volunteers from KPO's staff.

To supplement the road safety campaigns, KPO undertook a number of infrastructure improvements, including constructing more than 20 bus stop shelters to provide safe waiting areas for passengers and refurbishing the road running alongside the KPO accommodation camp. These improvements predominantly benefited the citizens of nearby homes and included putting in a dedicated pedestrian sidewalk along the busy road.



#### PARTNERING IN ASSET INTEGRITY AND INDUSTRIAL SAFETY

In 2009, KPO continued to play a central role in the newly formed Kazakhstan Oil & Gas Operators Association (KOGOA). This association comprises operators who are willing to openly discuss and address the safety challenges facing the oil and gas sector. This initiative began in late 2008 under the auspices of the Ministry for Emergency Situations to identify global best practice solutions and to implement them in Kazakhstan to improve safety in hazardous industrial facilities. The members of the association met four times in 2009 and agreed on the key areas of their cooperation, which included technical issues directly impacted by RoK regulations and standards (e.g., risk-based inspections, inter-casing pressure and pipeline integrity).

Thanks to this joint effort and to the cooperation with the Ministry for Emergency Situations, the Committee under the State Control for Emergency Situations & Industrial Safety and the WKO Emergency Situations Department, KPO has already realised significant benefits, having received formal approval of its risk-based asset management practices for Karachaganak Field assets.



## HEALTH

Health management in KPO is aimed at promoting the good health and well being of employees. It is conducted in compliance with RoK regulations on labour protection and requires constant monitoring of personnel and working and living environments, identification and implementation of adequate prevention measures, and diagnosis and treatment of work-related illness and diseases. OHSAS 18001 requirements were met in developing the Health Management System in 2009.

Health risk assessments (HRAs) continued for both field and non-field activities. A new tracking system for closure of corrective actions is being developed in cooperation with the Corporate Safety Department. HRA results are used to identify areas for health surveillance as well as to find appropriate remedial measures to reduce health risks.

Guaranteed first aid and emergency medical treatment was established in 2009 at clinics in the operating units and at the accommodation camp.



As a preventative measure, all workers undergo mandatory preliminary and periodic health checks; special medical examinations and pre-shift exams are also required for certain groups of employees, such as drivers. KPO employees are not permitted to work if they have not passed these medical examinations or have been deemed unable to work because of a health condition.

As a requirement under RoK sanitation laws, regulations and standards, all personnel working in the field are provided with a health surveillance plan, and KPO has put into place a comprehensive health surveillance programme. In addition, in 2009 medical screening of non-field-based employees was planned in order to evaluate the general health of the workforce not involved in field operations and increase their awareness of the importance of protecting their health and detecting early signs of illnesses. Screening is due to start in February and March 2010. Heart disease risk evaluation is also planned to identify employees at high risk of developing cardiovascular disease and to help develop individual preventive action plans.

Awareness campaigns promoting healthier lifestyles are also promoted in KPO. In 2009, a campaign to stop smoking was initiated, and courses were offered to employees.

Sanitation compliance monitoring was conducted regularly in 2009 to ensure that industrial hazards are not having any adverse health effects on the workforce and included monitoring of vibration, air quality, ventilation, electromagnetic/electro-static fields and noise. An annual programme of activities for each of these areas is developed and carried out with the approval of the Oblast Department of the State Sanitary Inspectorate.

Radiation monitoring was also conducted in accordance with a government-approved programme, and the results showed that hydrocarbon production and related processes do not pose a radioecological risk. Regular monitoring of the underground nuclear caverns that were created at Karachaganak during the Soviet period is the direct responsibility of the republic and is undertaken by the National Nuclear Centre based in Aksai.



## SECURITY

A safe and secure working environment is fundamental to the success of KPO's business. KPO embraces the Voluntary Principles on Security and Human Rights and encourages employees to raise significant concerns about any malpractice, improper conduct or unethical behaviour, as well as any attempts to conceal such behaviour.

The guiding management tool for security in KPO is the Master Security Plan, which was issued in 2009. The plan defines policies, procedures and measures, both at corporate and at operational facility level, to protect our personnel, physical assets, information and reputation.

Enhanced control over access to separated company facilities and advanced contractor management have been the focus of activities in 2009, along with continued supervision of pipeline security. There continued to be very few incidents related to personal security in 2009 thanks to our ongoing security awareness campaign, focused on the promotion of safe behaviours. We also registered a significant decrease in the number of incidents of theft at KPO.

Training and development of security staff to ensure adequate responsiveness and prevention continued to be a high priority in 2009. One employee has successfully graduated with an International Management Qualification Diploma; two security managers attended courses in security management at the International Academy for Security Management in the UK; and sixteen security superintendents and supervisors (including contractors) attended security courses run by the ARC International Academy for Security Management (UK) in Aksai.

### Illegal pipeline taps

There were two illegal taps on the KATS export pipeline in 2009. Early detection and quick mobilisation of response teams to the area ensured there were no damages to health or the environment. Though the number of such incidents has decreased in the last few years, KPO continues to be vigilant and improve its ability to prevent, detect and quickly repair illegal taps.



# Delivering Environmental Performance

Delivering leading environmental performance in the technically complex Karachaganak Field is a constant challenge. KPO deploys world-class techniques and innovative technologies to protect the environment in which we operate and to contribute to global efforts to tackle climate change.

Protecting the air, soil, water, biodiversity and ecosystems of Karachaganak is the main goal of our Environmental Programme. Environmental impacts are identified at the early stages of any new project through an environmental impact assessment (EIA), and a comprehensive set of monitoring programmes and prevention and mitigation measures are implemented for ongoing operations in accordance with the Kazakh regulations and the roles and procedures set in our Health, Safety and Environment Management System (HSE MS). KPO's HSE MS was developed in accordance with industry best practices and received ISO 14001 certification in 2008. Certification to an international standard requires continuous effort, and our compliance with ISO 14001 was verified again in 2009 by two surveillance audits undertaken by external certification auditors.

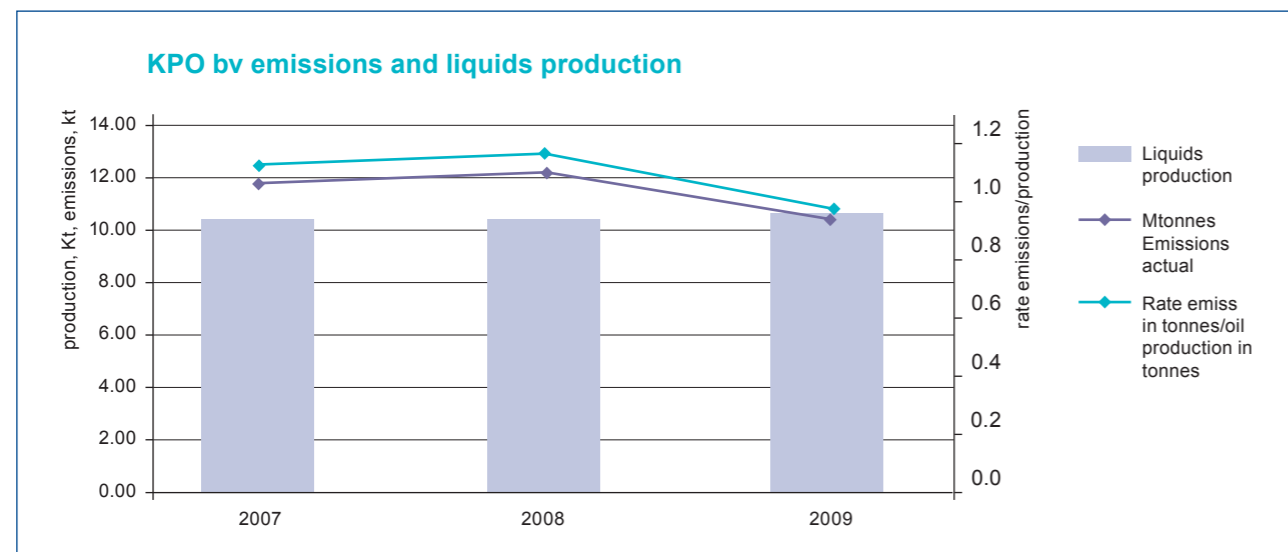
2009 marked a significant achievement in environmental protection with the formal opening of the Eco-Centre, a facility that allows for the safe treatment and disposal of liquid and solid waste associated with drilling activities. Moreover, using leading technologies has allowed KPO to shift to using oil-base mud for drilling wells, which is more effective and reduces water consumption,

emissions to air and waste produced from each well drilled.

Since assuming the operatorship of Karachaganak in 1997, KPO has invested over USD 156 million dollars in specific environmental protection measures to improve the environmental performance of the field.

### EMISSIONS TO AIR

In the course of recent years, KPO has developed and adopted a variety of innovative techniques and technologies aimed at reducing emissions to air associated with hydrocarbon production processes. For example, special flash gas compressors were installed to allow gases that emerge during de-gasification of the condensate to be returned into the production process. Also, the re-injection process at Unit 2 ensures that associated gases are no longer burnt but re-injected, significantly reducing the environmental impact. This continuous effort has resulted in a significant reduction in air emissions, both in absolute terms and as a function of production. Over the last three years, the total volume of emissions has decreased by approximately 13%, while total liquids production has increased year by year.

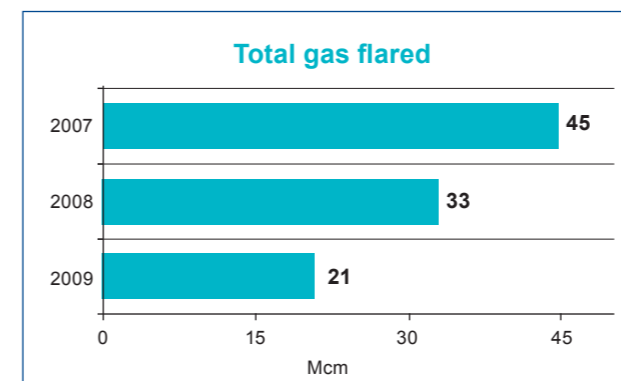


### FLARING

Flaring remains a key area of KPO's commitment to further cut down emissions and enhance hydrocarbon recovery. Although only 0.14% of the total gas produced by KPO was flared in 2009 (0.22% in 2008), we continue to look for ways to maintain high levels of plant reliability and introduce further emissions reduction technologies, especially in the areas of well testing and well clean up.

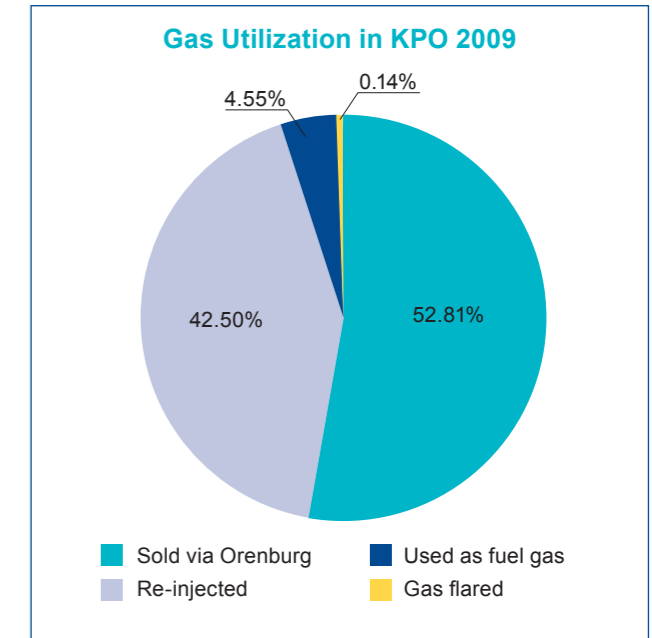
KPO introduced flareless well testing technology in 2008 to recover gas that would otherwise be flared during well testing operations, and in 2009 this became a standard operating practice. In 2010, we will be examining the feasibility of recovering both hydrocarbon liquids and gas during well clean-up operations.

As a result of these efforts, the total volume of flared gas has dropped significantly, even with increases in production volumes. In 2009, KPO flared around 21 million cubic metres of gas (0.14% of the total gas produced), with a reduction of around 36% compared to 2008 and around 50% compared to 2007.



If KPO performance is looked at in the greater context of the Republic of Kazakhstan, while being responsible for an estimated 45% of the total gas

produced in 2008, KPO would only be responsible for an estimated 0.48% of the total gas flared in the republic. In 2009 we achieved a world-class gas utilisation rate of 99.86% (99.78% in 2008). The regulatory target approved within Gas Utilisation Programme is 99.66%.



### GAS UTILISATION IN 2009

KPO's measures to reduce flaring have led to an excellent gas utilisation rate of 99.86% (99.78% in 2008).

- ◆ In 2009, KPO produced just over 15.5 billion cubic metres (bcm) of gas, of which:
- ◆ 8.3 bcm (52.81%) was sold via Orenburg. KPO is working to increase the amount of gas sold through this route;
- ◆ 6.6 bcm (42.50%) was re-injected into the reservoir using innovative high-pressure sour gas injection technology;
- ◆ 0.7 bcm (4.55%) was utilised as fuel gas, providing energy for the plant and for the local community; and
- ◆ Only 0.021 bcm (0.14%) of gas was flared, making Karachaganak the leading oil and gas condensate field in Kazakhstan for gas utilisation.

### AIR QUALITY MONITORING

Air quality in the Field and in the settlements in the nearby vicinity is continuously monitored. The

results of this monitoring show that air pollutants in these areas are below the maximum permissible concentrations (MPC) set by regulators, and that there is no indication that pollutants are accumulating in the air of Karachaganak Field or its impact area.

**Air quality monitoring is conducted:**

- ◆ at the source of emissions, where permanent detectors have been installed at all KPO production facilities. Should the concentration of pollutants exceed the MPC, an emergency signal will activate;
- ◆ inside the Sanitary Protection Zone (SPZ) and at its boundary, through 12 automated environmental monitoring stations operating day and night. The SPZ is a buffer zone around large industrial facilities such as Karachaganak Field which is defined by the Ministry of Health with the purpose to protect human settlements from potentially hazardous impacts of industrial activity. The boundaries of the SPZ for the Karachaganak Field are currently of 5 km. The environmental monitoring stations are equipped with sensitive gas analysers which provide real-time information on air quality, including hydrogen sulphide (H<sub>2</sub>S), sulphur dioxide (SO<sub>2</sub>), nitrogen dioxide (NO<sub>2</sub>) and carbon monoxide (CO) content. In addition, daily samples are tested by Gidromet, an independent state-licensed company, at the boundary of the SPZ;
- ◆ in the eight villages in the nearby vicinity, where samples are tested by Gidromet and monthly air quality test reports are delivered in each of villages and displayed on notice boards.



Concentrations (MPC) were registered in the air of the villages surrounding the Field for any of the components monitored.

**COMMUNITY PREPAREDNESS**

Despite the absence of exceedances at the SPZ boundaries and in the villages around the field, KPO continues to actively engage with the communities and the authorities in order to ensure coordination and effective response in the event of emergency situations. Communication and public information systems are installed and maintained by KPO. To ensure all systems remain effective, regular exercises are held in each of the villages according to the set notification and evacuation plans.

Once a year, a joint emergency exercise involving officials from the villages surrounding the Karachaganak field is held. In 2009, KPO's joint emergency exercise was with Zharsuat village, located to the north of the field. The exercise involved the akims of all the villages around the field, the Zharsuat village community and representatives of the Burlin District and the West Kazakhstan Oblast Emergency Situations Department. For this type of exercise, the KPO Emergency Communication Centre receives a simulated environmental incident, which activates numerous emergency and environment response personnel to investigate and mitigate the emergency. The village alarm system is activated, the akim is contacted, and procedures

Furthermore, a mobile environmental monitoring station is available to quickly mobilise if village residents call to report a gas odour, and volunteer village residents have been trained to assist Gidromet in the sampling and testing processes in order to enhance reliance on monitoring results.

Thanks to this extensive monitoring system, KPO has up-to-date information available to guarantee early detection and prompt response to any potential pollutant exceedances. In 2009, no exceedances of the Maximum Permissible

are implemented instructing residents to take appropriate actions. KPO response teams provide any necessary assistance to local authority emergency management teams until the drill is declared over. Representatives of the authorities evaluated the exercise and its overall success very positively.

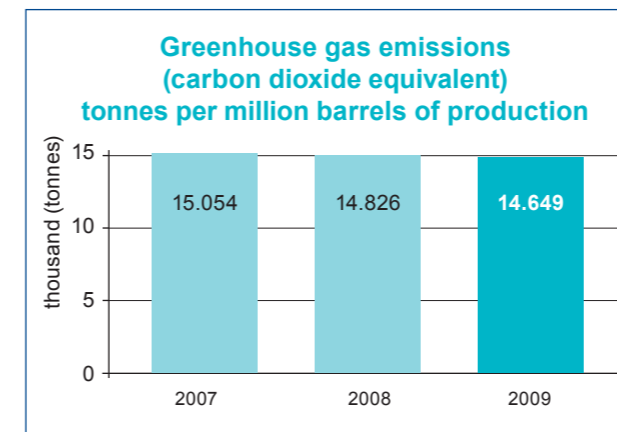
KPO will continue this effort to ensure that citizens are protected to the fullest and continues to upgrade environmental monitoring, communication and village alarm systems to incorporate the latest technology and meet the highest standards.

**GHG REDUCTION STRATEGY**

In line with the republic's requirements and its commitment to the Kyoto Protocol, KPO is committed to reducing greenhouse gas (GHG) emissions, recognised as the main cause of global warming. A GHG Reduction Strategy has been developed that sets the challenging objective of a one million tonne CO<sub>2</sub>e reduction over five years. The strategy, endorsed by senior management, focuses on enhanced practices for operational optimisation, the application of best practices, targeted capital investment, prioritised high-end returns, the promotion of essential baseline studies and the formalisation of a data verification process.

Despite 2009 being a year of increasing production, the implementation of the GHG Reduction Strategy resulted in

- ◆ achieving a verified reduction of 171.4 kt CO<sub>2</sub>e;
- ◆ registering a sustained reduction of 98 kt CO<sub>2</sub>e through continued implementation (year on year reduction) of GHG reduction projects in 2009; and,
- ◆ achieving 33% of our 1 million tonne reduction target.



GHG emissions per million barrels of production have been steadily decreasing in recent years. GHG savings are annually verified by an independent third party to ensure that the GHG reductions claimed are robust and verified.

**2009 GHG Reduction Projects**

**Flareless well testing**

All the hydrocarbons produced during a well test are sent directly to the processing facilities rather than being burned in the flare pit. During a well test, up to 27.7 kt of oil and 18.6 million cubic metres of gas could be flared. Using the flareless well testing generates additional revenue and reduces the company's GHG emissions.

GHG savings: 111.5 kt CO<sub>2</sub>e

**New splitter overhead condenser**

At KPC, oil for export to Atyrau is stabilised and sweetened by heating and aeration before being passed into the CPC pipeline system. The new splitter overhead condensers enhance condensation and reutilization of vapours resulting from those processes, avoiding the burning through the flare.

GHG savings: 25.9 kt CO<sub>2</sub>e

**Steam Generation Optimization**

A cross-flow heat exchange system was implemented with the benefit of providing a substantial heat recovery, enhancing field overall production capacity and reducing GHG.

GHG savings: 34 kt CO<sub>2</sub>e





## WATER

Water is a precious natural resource and KPO shares in the republic's efforts to conserve it. We monitor surface and groundwater to verify water quality, documenting water stream movement and potential pollutant migration, and conformity to the sanitation and hygienic standards in force. We also strive to optimise our consumption of fresh water by adopting conservation measures and recycling when possible.

In 2009, the following activities were conducted at KPO industrial facilities to improve water management:

- ◆ Ensuring that water facilities and technical devices are operational;
- ◆ Maintaining water lines, valves and fittings to prevent water loss from leaks;
- ◆ Recording and reporting about water used; and,
- ◆ Collecting and treating all streams of wastewater generated at KPO industrial facilities.

In addition, the results of a study on measures to improve the performance of sanitary sewage and oily wastewater treatment facilities were reviewed and the best technical solutions were selected for each industrial facility. A design project was then developed, and modernisation of the facilities has begun.

### Groundwater monitoring

Under the Groundwater Monitoring Programme for 2008-2010, five new observation wells were drilled in 2009 around the accumulation pond for treated effluents of Atyrau Terminal. In total, the observation

network for the Karachaganak Field and Atyrau Terminal comprises 56 water observation wells. Samples from these wells are analysed quarterly.

The results from the 2009 monitoring programme indicated that there was no degradation of groundwater quality in the Karachaganak Field from the waste and effluent ponds.

### Technical water

As a result of introducing efficient water management initiatives, the volume of water consumed by KPO for technical needs decreased by 17% in 2009 as compared to 2008. The reduction in 2008 was 7% as compared to 2007.

### Potable water

Potable water, water of sufficient quality for human consumption, is used in KPO offices and accommodation facilities. In 2009, the use of potable water increased by 12,000 cubic metres to 192,000 cubic metres, primarily due to a large temporary increase in our workforce connected with Train 4 construction activities.

We aim to conserve and recycle water where possible. In 2009, the volume of water recycled was 42,000 cubic metres (44,000 cubic metres in 2008). Recycled water is used in drilling, to water trees and to suppress dust.

## WASTE MANAGEMENT

In 2009, the total amount waste generated at KPO facilities increased to 69,269 tonnes, by 9% as compared to 2008. 14,504 tonnes of this waste was either recycled or re-used. The increase in waste generation was mainly due to Train 4 construction activities underway at KPC.



The commissioning of the Eco-Centre marked a significant improvement in KPO's ability to reduce waste production and improve waste treatment. The KPO Eco-Centre consists of a thermo-mechanical cuttings cleaning (TCC) facility, which enables the safe and efficient treatment of oil-base mud cuttings; a liquid mud plant (LMP), the processing facility for mixing and treating drilling mud; a liquid treatment plant (LTP), which treats hydrocarbon contaminated water, recycles brines used for work-over operations and reconditions water-based mud used in top hole drilling operations; and a rotary kiln incinerator (RKI), which is used to process oil-contaminated soil and materials other than drilling cuttings.

KPO is now able, among other things, to recover and reuse expensive base oil, which composes 65% of the oil-based mud, and to separate base oil and water from cuttings, thus reducing the volume of waste deposited at the storage site. Finally, to allow for the permanent safe disposal of treated drilling waste, KPO is currently constructing a permanent landfill site designed to the strictest safety and environmental standards at the Eco-Centre. The table below summarises the waste materials processed and recycled at the Eco-Centre during 2009.

Waste Material	Quantity
Drilling fluids recycled	7612 cu m
Brines recycled	3195 cu m
OBM cuttings processed	19903 tonnes
Base oil recovered for re-use	1471 cu m

In 2009, a memorandum was signed with Pavlodar Cardboard Factory to recycle paper waste. A project to segregate paper and plastic waste is scheduled to be implemented in 2010.

### Spills

In 2009, there was one single significant incident of land contamination, when a storage tank failed during the hydrotesting of a flowline. Approximately 1,000 litres of a 50% water/glycol mixture was spilled. The contaminated soil was cleaned up and removed to an appropriate storage location.

### Gryphon area remediation

Since 2000, KPO has been restoring the land in the Gryphon area that was contaminated after the blow-out of well 427 in 1987. The intention is to restore the land to agricultural grade. The total



area of contaminated land to be remediated is 49.1 hectares.

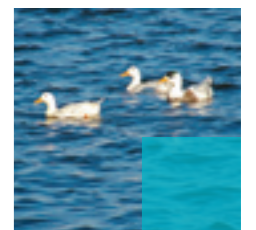
By 2009, 17.5 hectares had been reclaimed. Activities are continuing to reclaim the remaining 31.6 hectares by 2011 as specified in the project design.

### Biodiversity and ecosystems

Protecting the existing biodiversity is key in ensuring the conservation of local ecosystems. The area around Karachaganak Field is home to several notable plant and animal species, including some from the International Union for Conservation of Nature (IUCN) Red List.

KPO is committed to protecting those species by learning about their behaviours as a basis for adopting protective measures. A biodiversity and ecosystem services risk assessment and action planning have been discussed and will be further elaborated in 2010.

In 2009, a study was concluded on the hydrochemical behaviour of the Berezovka River and Kunchubai and Kalminovka bays and its impact on the condition of fish fauna. Recommendations on protecting the hydro biocommunity have been developed and are currently under consideration. The data collected on hydrochemical behaviour in the region can also be used to create a database of levels of accumulated biogenic elements and a toxicological index of the reservoirs/basins located in the impact zone. It will also help find a way to minimise impacts on the environment as a result of oil and gas industry activities.





# Karachaganak at a glance

## AN INTERCONNECTED SYSTEM

85 producing wells and 15 sour gas re-injection wells are currently online at Karachaganak with a total well stock of 354 wells. Production and processing occurs at the three major units: the Karachaganak Processing Complex, Unit 2 and Unit 3. Approximately 2,000 kilometres of pipelines make up the infield system linking the major facilities and allowing efficient flows of production from the wells and among the units.

### KPC

The Karachaganak Processing Complex processes oil condensate from 32 production wells and from Unit 2. Oil and gas are separated through slug-catchers. The oil feed is treated by 3 stabilisation trains and pumped into the export pipeline to Atyrau for sale on the international markets.

The gas phase splits into two streams. One feeds the sweetening plant, providing fuel gas supply for the field's power station and sweet gas supply for the local market. The second stream is directed to Unit 2 for re-injection and/or to Unit 3 for export to Orenburg.

### Unit 3

Unit 3 has been operating since 1984 and separates and partially stabilises gas and oil condensate from 27 incoming wells, before exporting via pipeline to the processing facility at Orenburg Processing Plant in Russia.

Unstabilised condensate is also supplied to a neighbouring privately-owned facility for treatment.

### Unit 2

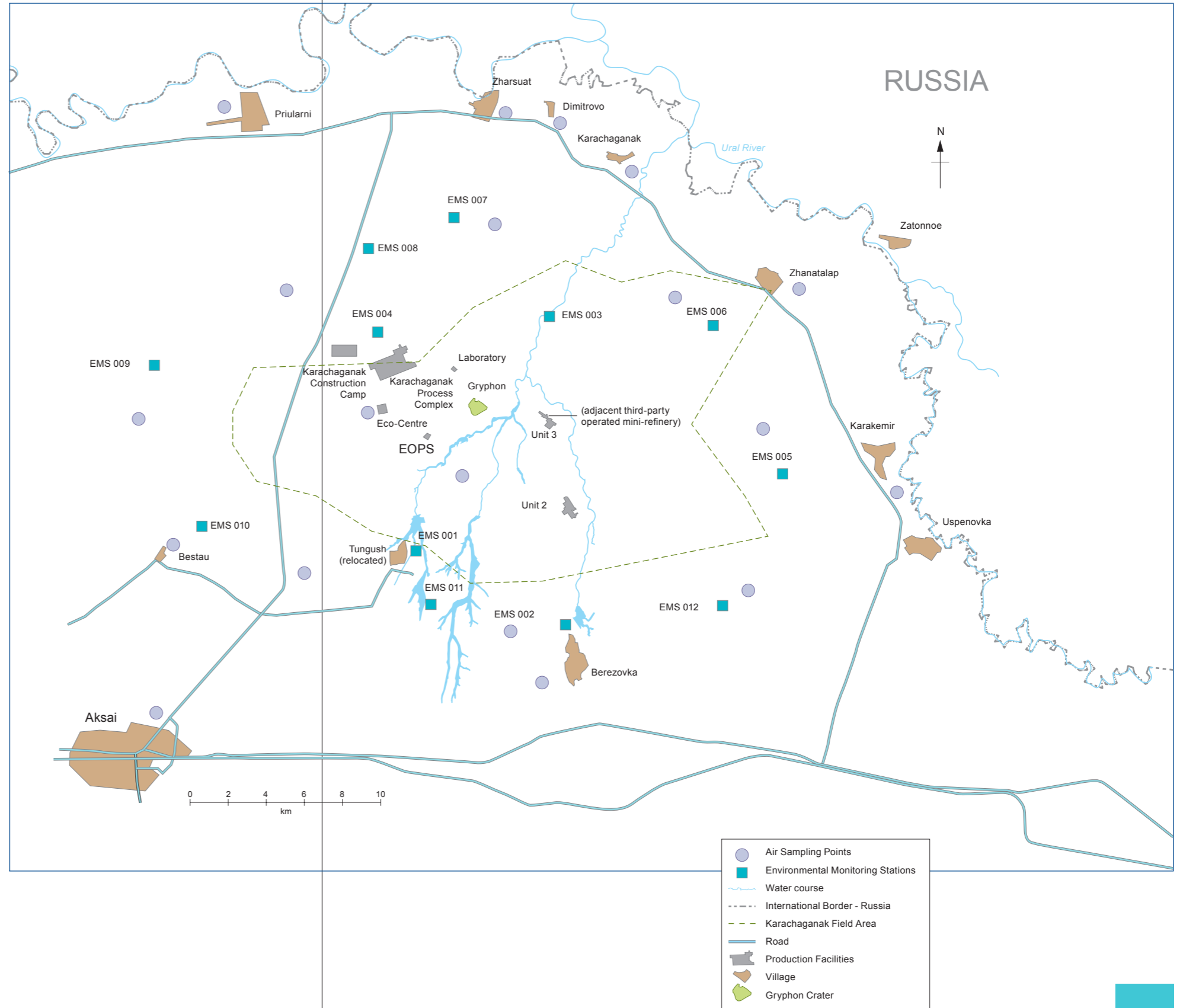
Introducing leading technology has made Unit 2 a unique multi-functional facility. It is able to separate, process and re-inject high pressure sour gas and to produce oil, then sent for stabilisation at KPC prior to export. 19 incoming production wells feed Unit 2.

One of the highest pressure sour gas injection systems in the world is in place at Unit 2. Three compressors are capable of injecting gas at a pressure up to 550 barg with a high H<sub>2</sub>S content (up to 9%).

This gas injection scheme has been proving to be successful as it provides partial pressure maintenance, improves liquid recovery and also eliminates the need to extract sulphur which delivers important environmental benefits.

### Eco-Centre

The KPO Eco-Centre consists of a Thermo-Mechanical Cuttings Cleaning (TCC) facility, which enables the safe and efficient treatment of oil base mud cuttings, a Liquid Mud Plant (LMP), the processing facility for mixing and treating of drilling mud, a Liquid Treatment Plant (LTP), which enables treatment of hydrocarbon contaminated water, recycling of brines used for work-over operations and reconditioning of water based mud used on top hole drilling operations, and a Rotary Kiln Incinerator (RKI), which is used to process oil contaminated soil and materials other than drilling cuttings.

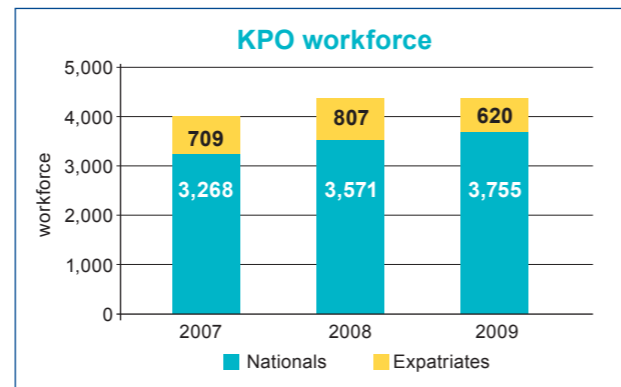




## Investing in our People

Developing and operating the Karachaganak field requires thousands of dedicated and capable employees in a wide range of disciplines, from petroleum engineers and technicians to accountants and logistics specialists. Our people are the key to our success. We invest heavily in the development of our national workforce, using the international expertise of our Partners in the Venture, appropriate classroom training and renowned educational institutions.

At the end of 2009, 4,375 people worked at KPO. The number of national staff has increased by more than 200 people, thanks to the implementation of our succession and nationalisation plans. There has been a corresponding decrease in the number of expatriate personnel. The Project Development Directorate in London has also been restructured, and this has contributed to a decrease in parent company secondees. KPO's workforce comes from many different parts of the world and has varied cultural backgrounds. This makes working in KPO not only a rewarding professional experience, but also an opportunity for personal development.



### TRAINING AND DEVELOPMENT

KPO offers an extensive **training and development programme** aimed at:

- ensuring that employees meet the minimum competency (skill, knowledge) requirements in order to do their jobs effectively;
- developing employees to be able to take on larger roles with more responsibility within the organisation, supporting the business with talented and motivated persons to fill critical positions.

In 2009, over 250,000 hours of training was delivered to national staff (an average of 67.2 hours of training per employee). In terms of expenditure, this corresponds to USD 5,569 per employee spent on training and development in 2009.

We apply an individualised approach to employee needs in training and development, offering custom development activities including vocational in-role training, secondments to parent companies and opportunities for external training for new skills and qualifications. Such an approach requires a continually updated evaluation of development needs across the business, but it enables us to tailor development plans to the specific needs of an individual in a specific company area, thus maximising results. This also ensures robust

### Awards

- KPO received the prestigious Paryz Award in the «Best Collective Agreement» category at the official ceremony of the National Contest for Socially Responsible Business, held at the Astana on 2 December and chaired by the President of Kazakhstan, Nursultan Nazarbayev.
- 5 KPO employees have been honoured by the President of Kazakhstan with Kurmet Diplomas, a state award.
- 29 KPO employees have received awards from the KazEnergy Association for their performance and dedication to the development of oil and gas industry in Kazakhstan.
- 2 KPO employees have received the Certificate of Merit awarded by the Ministry of Energy and Mineral Resources of RoK.



control over the implementation of the training and development plan and the use of the training and development budget, and enables fair and efficient monitoring of the employee's improvements in effectiveness and competence.

The most widespread training method in the company is the use of training courses – short- and long-term courses aimed at providing employees with the professional skills they need to do their job. Another facet of training and development at KPO is the expansion of opportunities to attend internationally certified programmes. KPO's general strategy depends on the introduction of international practices and technologies. Employees not only need to possess the skills required to operate new equipment or work with new technologies, but also to acquire the advanced knowledge required by the industry at the international level. Besides production-related needs, programmes are also instrumental in personal development, staff motivation and retention.

KPO employees also participate in on-the-job training activities. Job rotation/cross training is also used to help employees to become fully competent in their professional sphere. Rotations are planned for a certain period of time and aimed at specific knowledge and skills development.

Parent company assignments can be a brief internship aimed at learning about the organisational culture of the parent company, its policies, and the instruments and methodology used in the employee's specialisation, or a longer experience, aimed at enabling the employee to obtain real international experience, working on real projects in a stimulating environment.

Finally, mentoring within KPO is considered an integral component of professional development. The primary responsibility for development always lies with the individual, but the active support of a wise mentor can be extremely helpful at particular times in a career, e.g., in the early stages, or following a change in role. Having a mentor is an excellent means of helping employees gain their mentors' managerial insights and develop managerial skills themselves through transfer of experience. This helps to promote a cultural exchange, to transfer the experience of successful managers to less experienced national staff, and to develop interpersonal communication skills with representatives of various nationalities and business cultures.

### Graduate development schemes

For a number of years, KPO has been developing different ways for graduates of Kazakhstan universities to join our company, develop themselves and contribute to future growth.

These programmes are aimed at developing specialists able to fulfil the resourcing needs of KPO's technical departments, both from a qualitative and quantitative point of view. Through tailored theoretical and practical training and on-the-job experience, young graduates are provided the competences required to work in the oil and gas industry, thus contributing not only to KPO's success, but also to the creation of a talented Kazakhstan workforce able to secure sustained growth.

Educational agencies, such as the Eni Corporate University and the Oil and Gas Academy OPITO, are engaged by KPO to develop leading graduate schemes. The Production Operators and Maintenance Technicians Professional Development Programme launched in KPO in 2008 is based on the UK Oil & Gas Academy's Modern Apprenticeship Scheme (OPITO). KPO is the first company in the CIS to run OPITO certified training, which is recognised internationally. All trainees are selected using aptitude testing, which identifies the ability to learn technical disciplines. The training scheme, once completed, provides an opportunity for high-performing individuals to secure employment with KPO and for KPO to hire qualified operators and technicians. Each year we select a small group from this pool to specialise in well operations.

In 2009, 95 Kazakhstan trainees were awarded Higher International Certificates from the OPITO Oil & Gas Academy, and 87 of these are currently working directly for KPO. In June 2009, 113 trainees started a new round of the OPITO Programme.

In a presidential address to the nation in March 2009, Nursultan Nazarbayev asked for special attention to be given to supporting and developing unemployed graduates. KPO volunteered to provide six months of on-the-job training for 35 new graduates living in the local Burlin region, and 11 have already been employed by the company.

KPO also works in co-operation with a number of universities in Kazakhstan to provide work placements for undergraduates to help them to get a taste of working in the oil and gas industry. This scheme is also open to Kazakh students studying abroad, during their holidays. In 2009 we took 484 students, an increase of almost 6% on the previous year.

#### KPO apprenticeship scheme

This scheme was the first of its kind when launched in 2007, offering an opportunity for young local people interested in technical jobs in the oil and gas industry to take the first steps in their careers. KPO has formed a partnership with Burlin College and Lyceum No. 15 in Aksai to integrate technical knowledge into their curriculums and to provide on-the-job training in a student's final year of study. Currently, there are 28 students on the annually run programme. We also provide development opportunities for the teachers to further enhance the learning experience.

#### KPO scholarship programme

Since 2003, KPO has supported talented students from Kazakhstan universities who have chosen



a field of study related to the oil and gas industry. Scholarships are advertised at the universities, and a dedicated internal KPO committee evaluates applications. In 2009, 15 students were granted scholarships worth USD 3,000 each. To date, 114 students have received scholarships from KPO.

Scholarships are also offered to KPO employees and their children as a means of supporting their desire to advance their education. In 2009, 27 employees and 44 children of employees received scholarships from KPO, for a total of USD 140,000. Since 2002, when this programme started, 79 employees and 179 children have received scholarships, for a total of USD 780,000.

#### Competence management system development

The complexity of KPO activities requires robust competence management in order to ensure that KPO employees' level of competence complies with the established standards. Good competence management also gives a clear understanding of the current and future training and development needs of staff.

The competence management system for non-technical job roles is being finalised and will be gradually implemented to reach full operation in 2010. A similar system for technical and safety-critical roles will be launched in the next few years.

#### EMPLOYEE SURVEY

In 2009, we conducted a survey of all employees and local agency staff in order to understand the drivers of employees' motivation and define actions targeted at improving KPO's reputation as a good place to work.

#### Key Findings

- ◆ KPO's reputation and practices in its multinational environment, its HSE and social responsibility in the community, and the good prospects for professional and career development it provides were highly rated by employees.
- ◆ Employees said that the company makes significant efforts to create equal conditions for all employees. Respect for the individual and the cultural diversity in KPO was highly appreciated.



- ◆ The company has introduced diverse communication channels to provide information about KPO. The importance given by employees to the KPO newspaper and intranet as valuable sources of information has increased significantly over the last three years.

#### EMPLOYEE REPRESENTATION

In KPO the rights of workers to associate and collectively negotiate working conditions are fully respected. More than one-third of national employees are members of a trade union, and 100% of them are covered by the terms of the negotiated collective agreements, including labour conditions and social benefits.

In June 2009, collective agreements were renewed between KPO and the Karachaganak Independent Trade Union, the Karachaganak Trade Union of KPO employees, and the regional branch of the Trade Union of GPTiS Employees.

The new collective agreements contain positive developments in terms of employees' welfare, such as the extension of medical insurance to employees' relatives, and reaffirm KPO's commitment to employee relations and collective bargaining. The KPO Collective Agreement was commended with the Paryz Award for social responsibility.

#### INTERCULTURAL COMPETENCE DEVELOPMENT PROGRAMME

This programme is the continuation of an initiative started by KPO with its sponsorship of the conference «Cultural Diversity and Intercultural Communication», held in 2007 in Astana. It is aimed at maximising the benefits of having a diverse workforce and turning cultural diversity into an asset.

Organised in three phases, the Intercultural Competence Development Programme will support KPO employees and managers in developing their ability to work successfully while living in a multicultural environment.

Phase I of the programme is focused on providing advanced educational training in intercultural competence to KPO managers and is largely complete. Approximately 120 managers have participated in the first round of training, which is aimed at developing the skills to overcome ethnocentrism and improve intercultural communication. In the second round of training, which has been completed by about 50 managers, skills in multicultural team management and strategic uses of cultural diversity in organisations are developed. Additional round two programs will be offered in 2010.

In Phase II, about 800 KPO employees have completed the «Improving Intercultural Communication within KPO» training programme. The programme is scheduled to continue through 2010 and 2011.

In Phase III, the programme aims at sharing KPO's experience with government ministries and KazMunayGas, thus creating a sustainable «virtuous circle» of communication between KPO and its partners and contributing to the Republic of Kazakhstan's efforts to build a multicultural society.

Immediate post-programme evaluations of the training have been largely positive for both managers and employees. A comparative pre/post study of changes in KPO managers' intercultural competence and a qualitative study of changes in managers' perception of cultural differences will enable KPO to measure the efficacy of the programme as it proceeds.

In order to develop and conduct the Intercultural Competence Development Programme, KPO has engaged a leading international expert in the field and has encouraged the transfer of his knowledge to a selected Kazakhstan training provider, enabling the latter to offer training in intercultural communication to KPO itself and to other companies in Kazakhstan.





# Contributing to Economic Development

Maximising the value of the Karachaganak Field to Kazakhstan means more than generating revenues and taxes through oil and gas production. It means forming long term, durable partnerships for economic development.

In 2008, a study conducted by two independent institutes (Oxford Economics, based in the UK, and the Institute for Economic Strategies, based in Kazakhstan) revealed that the combined direct, indirect and induced contribution of KPO operations to the Kazakhstan economy since 1997 had reached USD 4.2 billion in 2007, amounting to 4% of gross domestic product (GDP) and underpinning 137,000 jobs.

## NEW LOCAL CONTENT LAW

KPO recognises the significance and the necessity of the efforts the Republic of Kazakhstan is making to develop local content and supports strategic efforts to systemise the regulatory framework.

KPO has been represented in the Foreign Investors Council Local Content Working Group and took a serious and proactive role in the discussion of the new «Single Methodology» concept for calculating local content as it relates to the procurement of goods and services and of the draft concept statement to develop local content.

A number of laws have been amended and the «Single Methodology» for calculating local content was approved as a means of increasing the local content in goods, works and services purchased by subsoil users. In addition, these laws have established requirements for subsoil users to report on local content. To ensure compliance, KPO needs to specify applicable reporting requirements for all contractors that provide services and supply goods on behalf of KPO.

## SUPPORTING KAZAKHSTANI BUSINESSES

Local suppliers' capacity building through sustainable development and skills transfer are central to the way KPO works. KPO aims to continue to develop the competencies and capabilities of local companies to meet international standards and oil and gas industry requirements.

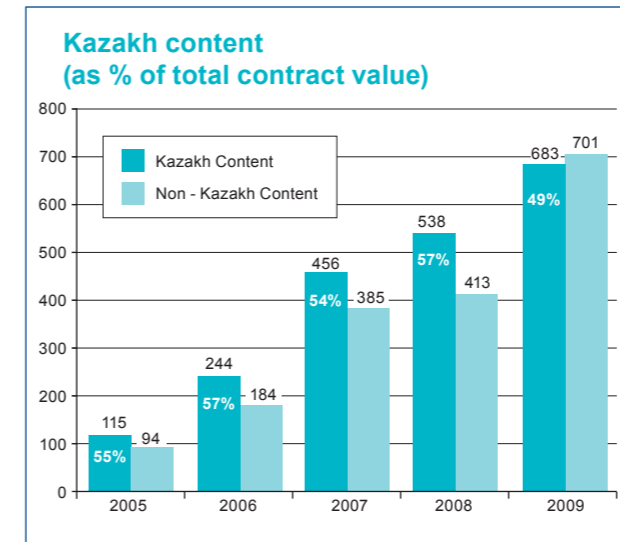
Karachaganak's vendor development initiative, in place since 2001, has resulted in the registration of over 3,000 Kazakhstani vendors. Since 1997, over USD 3.5 billion worth of contracts has been



concluded for the provision of goods, work and services of Kazakhstan origin.

In 2009, KPO awarded contracts of local content totalling USD 683 million, representing 49% of the total contract value for the year (the target agreed with the authority for 2008-2009 Local Content Plan was 43%). Non-local content as compared to 2008 increased more in value than local content did. This is due to the conclusion in 2009 of two major long-term contracts to foreign companies for the provision of oil field equipment that was not available on the local market.

KPO actively promotes vendor development through a range of initiatives like assisting local businesses



in developing their key staff through international qualifications in environment, quality, health & safety, finance, project management, technical standards and workshops. KPO benefits from the development of local companies, as this creates a sustainable business environment that delivers direct benefits to all local suppliers.

In April 2009, KPO hosted a local content forum, «Partners in Prosperity», in Uralsk, the regional centre of the Western Kazakhstan Oblast (WKO). The forum brought together over 100 suppliers and contractors from WKO. During the forum, local business representatives received information about a range of initiatives which KPO is undertaking to support the further development of local businesses. Participants also received updates on KPO's current operations and project development plans.

During the forum, a Memorandum of Understanding was signed establishing a formal Working Group consisting of representatives from the Akimat of WKO, KazMunayGas, Kazakhstan's Atameken Union National Economic Chamber, Karachaganak Petroleum Operating, and the Association of Entrepreneurs of West Kazakhstan Oblast. This group is working together to improve understanding of local companies' capacity and look at ways to enhance and develop opportunities for local suppliers and contractors.

KPO has met its obligation announced at the forum and set up a local content office in Uralsk. It was established with the aim of providing professional assistance and guidance, enabling new companies or companies that have a contract with KPO to have direct discussions with KPO's technical and commercial staff on an individual basis. While KPO has an important role to play in local content development, suppliers need to work with KPO and its contractors to ensure they can deliver to specified standards, do it safely, on time, to the right quality, and be competitive.

In 2009, ten WKO-based local companies were funded to help them achieve integrated implementation of ISO 14000 and OHSAS 18000.

KPO also hosted a series of monthly workshops for Kazakh vendors. The objective was to improve relationships with the local business community and to assist them in overcoming barriers such as being able to comply with KPO's standards and conditions for HSE performance and supply the required goods and services.

In an endeavour to maximise opportunities for RoK local content during the procurement cycle for NCOC, TCO and KPO and to provide transparent opportunities for all prospective local contractors, the three major oil and gas operators in Kazakhstan hosted a joint forum with the involvement of international producers and local suppliers of production and drilling chemicals. The forum, held in Astana on 15 May 2009, aimed to identify the current and future demand for chemicals of NCOC, TCO and KPO projects, and to stimulate the development of the Kazakhstan chemical market by facilitating partnerships between international and local companies. The forum was attended by 75 delegates, representing 33 local and 15 foreign companies, along with the authorities and other state officials.



### INVESTING IN LOCAL PEOPLE

Workforce nationalisation is a crucial building block in the creation of KPO's economic legacy, maximising the number of local employment opportunities and investing in the workforce of Kazakhstan. We have met the targets set by the Republic of Kazakhstan and already set new benchmarks for next 10 years that will see a Kazakhstani management team steering the future course of Karachaganak.

In 2009, 24 additional senior positions at KPO were nationalised. At the end of 2009, local employees filled all of the venture's skilled and clerical positions and 87% of professional and supervisory roles. At the managerial level, 49% of positions are filled by local employees.

New targets set in the next Nationalisation Plan include:

Description	2009	2018 Plan
Management	49%	70%
Professional staff and Supervisors	87%	95%
Technical staff	100%	100%
Support and Clerical Staff	100%	100%

The KPO nationalisation strategy is closely linked to the main strategy of the company. In order to deliver on nationalisation targets, while at the same time improving organisational capabilities particularly

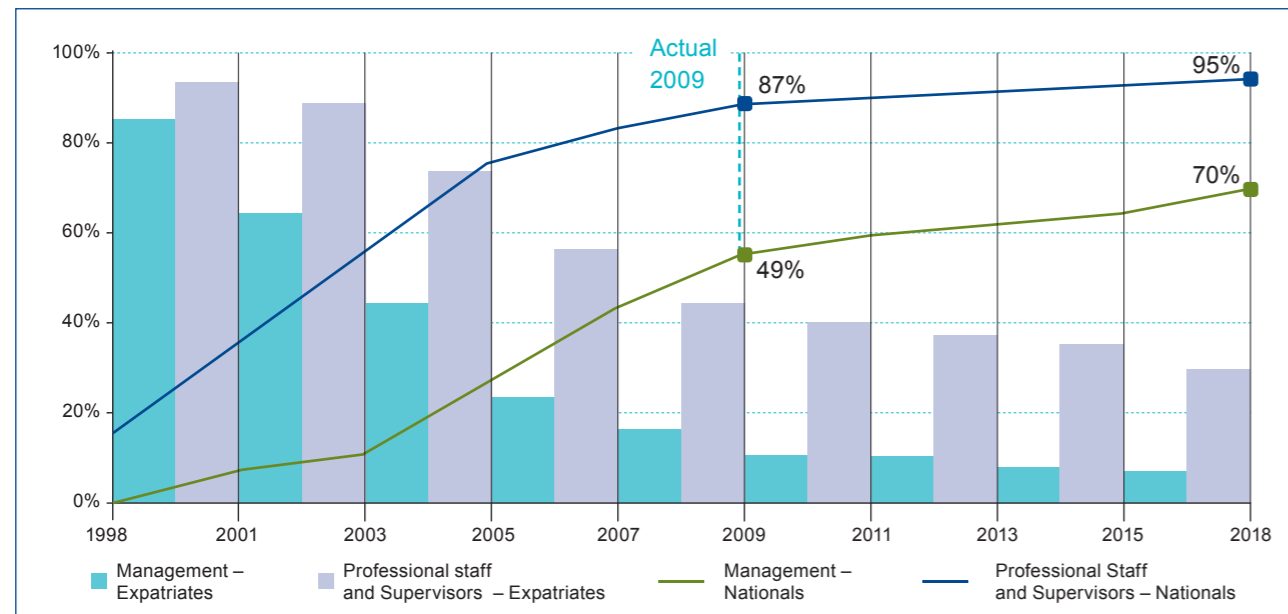
in the area of management, the strategy relies not just on the development of knowledge and technical skills, but in the overall management capabilities and experience of the individuals involved. Recognising the critical importance of development of national employees, KPO has established an approach for transitioning the most talented Kazakh nationals into an increasing number of business critical managerial roles.

The strategic approach of HR towards the nationalisation process basically boils down to the effective planning and implementation of the local staff training and development process rather than the mere replacement of expatriate personnel with Kazakhstani staff. This will in its turn ensure that all KPO operations are carried out at the highest level and in accordance with international standards. This will allow KPO to meet the objectives set by top management with the highest possible level of quality.

### SUPPORTING HIGHER EDUCATION IN THE WEST KAZAKHSTAN OBLAST

The development of a highly educated workforce pool is not only a KPO requirement, but also fundamental in achieving the West Kazakhstan Oblast's long-term social and economic objectives.

The Karachaganak partners, the Republic of Kazakhstan and the West Kazakhstan Oblast agreed in 2008 to allocate resources to the improvement of technical educational institutes in the West Kazakhstan region. The Technical Lyceum located in Aksai (Lyceum No. 15) has been



the first focus for attention, due to its proximity to KPO operations. Together with the Burlin District Akim and the Lyceum director, KPO identified the need to improve equipment and methods used to train students in oil and gas related fields. In 2009, KPO started to place contracts for the purchase of training equipment. In addition, a series of skills and methodology upgrade workshops have been delivered to the Lyceum's Kazakhstani trainers.

KPO also supports regional institutes of higher educational and universities in non-oil and gas related fields. Since 2002, financial support has been provided to eight institutes and universities in the region and to the prominent Kazakh National Technical University in Almaty. The average total contribution per year is USD 60,000. In 2009, USD 35,000 was allocated to Burlin State Professional Lyceum No. 15, the WK Engineering-Technological College in Aksai and the Kazakh National Technical University in Almaty. In 2008, USD 80,000 was allocated to other institutes.

### CONTRIBUTING TO MAKING ENERGY AVAILABLE FOR REGIONAL DEVELOPMENT

On 19 December 2009, the Prime Minister of the Republic of Kazakhstan inaugurated the first section of the Karachaganak-Uralsk gas pipeline, constructed by KPO. The ceremony was held in the village of Federovka and was attended by the WKO Akim and KPO management.

Once complete, the pipeline will allow local gas distribution companies to tie in and deliver gas to Uralsk and rural settlements situated on the left bank of the Ural River on the route between Karachaganak Field and Uralsk. Ownership of the pipeline will be transferred to the Republic of Kazakhstan, and the pipeline will be operated by a national company.

As well as providing energy to rural communities, supplying this environmentally friendly fuel to the region will encourage industrial growth and increase economic potential. Construction of the pipeline was agreed by the Karachaganak partners, the Republic of Kazakhstan and the West Kazakhstan Oblast and a Memorandum of Intent was subsequently signed in the presence of President of the Republic of Kazakhstan Nursultan Nazarbayev.

The first section, completed in December 2009, goes from Uralsk to Novopavlovka and supplies gas to the Federovska district thanks to a connection to the existing Orenburg-Novopskov gas pipeline.



Construction of the pipeline was contracted by KPO to a Kazakh construction company, KazStroyServices (KSS). Construction of low pressure lines and connection to settlements is handled by local gas distribution companies.

Completion works for the main pipeline are ongoing, including branch lines to Aksai, Burlin, and Tungush. In October 2009, KSS and KPO started construction on an additional branch, a 116 km 10-inch gas pipeline which will supply gas to Dzhambety district. This branch was added to the original scope of the project. Completion of the original and additional works is expected in 2010. Estimated costs for the project are about USD 300 million.

Under the framework of social projects realised in accordance with the FPSA and the priorities set by the West Kazakhstan Oblast Akimat, KPO in 2009 also completed construction of two local distribution lines, connecting the main Karachaganak-Uralsk gas pipeline at Novopavlovka with 11 rural settlements. USD 6.6 million was spent constructing these gas pipelines.

Finally, portions of gas extracted at Karachaganak and electric power produced by KPO are delivered to the local market, thus contributing to a secure energy supply in the region.

Sweet gas is provided to a gas distribution company for local consumption in nearby villages and in Aksai. Gas is also provided for electric power generation and distribution in the West Kazakhstan Oblast. Though certain volumes of gas supplied for power generation were set already in the FPSA, KPO voluntarily agreed to expand delivery to fulfil local demand. The total volume of sweet gas supplied in 2009 was 127,620 Mscm.

As for electric power, in 2009 about 407 million KWh produced at the KPO power plant were sent to the country's national grid.

## SUPPORTING SOCIAL INFRASTRUCTURE

Under the terms of Annex 5 to the FPSA, KPO provides USD 10 million per annum to the development of social infrastructure projects identified by the West Kazakhstan Oblast Akimat in accordance with social development priorities. These projects mostly take place in the regional capital, Uralsk, and include building schools, nurseries, hospitals and cultural and sporting facilities.

In 2009 the RoK Government and KPO Joint Operating Committee (JOC) doubled the amount

of funding for social and infrastructure projects, from USD 10 million to USD 20 million. Resolutions permitting KPO to actually spend the additional resources, however, were only passed in late 2009. As a result, this funding will only be made available for projects to be realised in 2010.

KPO receives a list of the projects set by the WKO Akimat and ensures the design, contracting, project management and delivery of the works, which are then handed over to the Republic of Kazakhstan. All social projects are realised by Kazakh companies.

Social Projects (Uralsk)			
Construction of	Description	Budget allocated 2008 Million USD	Budget allocated 2009 Million USD
Kindergarten in Zhana-Orda microdistrict of Uralsk <i>Completed</i>	Two kindergartens for 280 children each who mainly live in the Bolashak and Zhana-Orda microdistricts of Uralsk. These two projects are considered as turnkey projects equipped with all the necessary equipment and inventory. The projects were completed in August (Zhana-Orda) and September (Bolashak) 2009	2.25	0.75
Kindergarten Bolashak microdistrict of Uralsk <i>Completed</i>		2.25	0.95
Purchase of 56 apartments in micro district 7 in Uralsk <i>Completed</i>	Several residents required new accommodation given the severe conditions of their current houses. New apartments were bought and constructed and have been assigned by the Akimat to the entitled residents.	2.5	
48 apartments In micro district 9 of Uralsk <i>Completed</i>	The purchase of 56 apartments was performed in September 2009, and construction of a 48 apartment block was delivered in December 2009	1.35	
Gas pipelines in WKO <i>Completed</i>	The Novopavlovka-Fyodorovka and Novopavlovka-Podstyopnoye gas pipelines aimed at connecting 11 villages to the Karachaganak-Uralsk pipeline. The project was completed in December 2009		6.6
Kindergarten in Uralsk Microdistrict 6 <i>On-going</i>	This project will satisfy the demand for a kindergarten in a new microdistrict of Uralsk. Completion of construction is scheduled for October 2010. The Kindergarten will be able to accommodate 280 children (12 groups).		3.15
	<b>Total</b>	<b>8.35</b>	<b>11.45</b>

In 2009, KPO completed the construction of two kindergartens in Uralsk that was initiated in 2008 and constructed two gas pipelines aimed at providing gas to 11 villages along the route to the Fyodorovka and Podstyopnoye villages. KPO also started working on a new kindergarten in Uralsk Microdistrict 6, which is expected to be completed in October 2010. Data in the table are reported as they appear in the JOC Resolutions approving the allocation of funds.

In 2008 and 2009, the RoK government and the KPO Joint Operating Committee exceptionally allocated USD 10 million per each year to improvement projects in the town of Aksai, where much of KPO's administrative activity takes place (approximately 30 kilometres from the Karachaganak Field).

With 2008 funds, and in accordance with the projects identified by the district authorities, KPO has completed the refurbishment of roads and a kindergarten and purchased medical equipment for

the local hospital. Also, works were started on the construction of a secondary school for 900 children in Microdistrict 10 of Aksai. We expect to inaugurate the school at the beginning of the next school year (fall 2010).

Funds allocated for 2009 could not be spent because the government resolutions were passed too late in the year. They will be used in 2010.



Aksai Special Projects		
Construction of	Description	Budget allocated 2008 Million USD
Secondary School for 900 children in Microdistrict 10 of Aksai <i>On - going</i>	The School is aimed to accommodate 900 children from microdistrict 10 and shabby-house district adjacent to Czech Camp. The School will consist of 36 classrooms, 2 gymnasiums, conference room, canteen and amenity block. Works are expected to be finished by the beginning of the school year 2010.	8
Medical Equipment for District Hospital <i>Completed</i>	A list of equipment identified by the WKO Health Department was issued to the Aksai District Hospital and some of the clinics in the rural districts of the Burlinski District. Equipment was delivered in February 2009.	0.5
Refurbishment of Kindergarten #2 <i>Completed</i>	Kindergarten # 2 is located in microdistrict 4 of Aksai and counts about 280 children. It needed a complete refurbishment. Works finished in April 2009	0.5
Improvement for Motor Roads <i>Completed</i>	Refurbishment of motor roads in Aksai was performed on Zhaik, Syrym Datov, Abai and Nauryz streets. The scope of works comprised roadside broadening, replacement of top course, installation of curbs and construction of road shoulders. Works were conducted in 2008 and 2009	1
	<b>Total</b>	<b>10</b>



# Engaging with the Communities

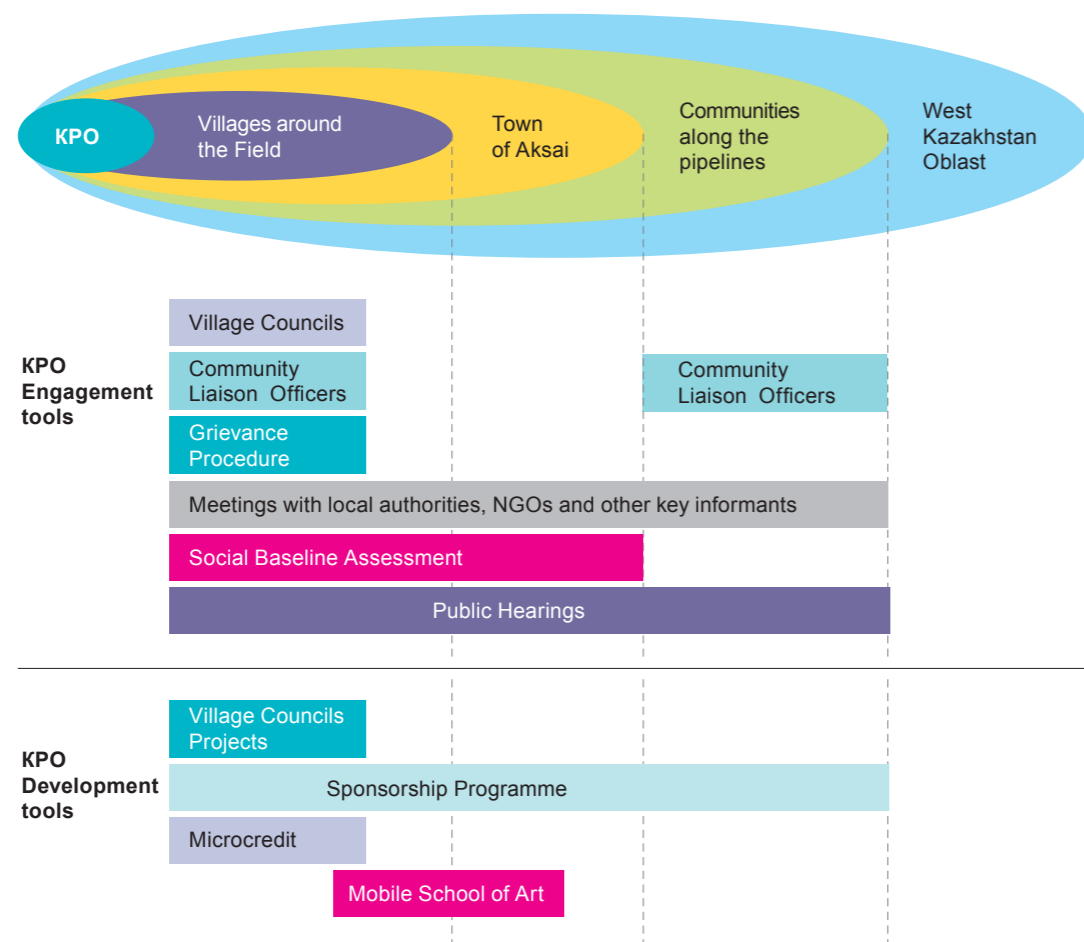
KPO is committed to being a good neighbour of the communities around its operations and to support the efforts of the local authorities to pursue their development goals. We therefore work to avoid or minimise impacts from our activities, to maintain effective communications and relationships with interested and affected stakeholders and to create opportunities to enhance benefits to society.

## A STRATEGIC APPROACH

The reference framework for KPO activities in this area is set by the Social Performance Policy, Standards and Operating Procedures, introduced in 2008 and inspired by the Performance Standards of the International Finance Corporation. Though our Social Performance extends to reach all our society stakeholders, special attention is given to our area of direct impact, defined by the proximity to KPO operations. Our closest neighbours are eight villages in the rural area around the Karachaganak Field, totalling a population of about 5,500 inhabitants. The town of Aksai comes next, where most KPO employees live and administrative

buildings are. Aksai counts about 35,000 residents and is the capital of the Burlin District.

In order to obtain an increased understanding of the socio-economic conditions in these settlements, a Social Baseline Assessment was commissioned by KPO. Data was obtained during one-on-one interviews with key informants and focus group discussions. The results of the Assessment were confirmed and discussed with the interested communities in a round of meetings during summer 2009. Based on this Assessment, KPO has developed an objective set of information useful for measuring the impacts of KPO activities over time and tailoring community development initiatives.



Already in 2009, KPO has started consultations with interested stakeholders to define initiatives aimed at addressing some of the issues identified in the Social Baseline Assessment. Most of these initiatives will be implemented in 2010 and we will report on them in the 2010, Sustainability Report.

## BUILDING CONSTRUCTIVE DIALOGUE

Consultations are a fundamental pillar of KPO activities in the social performance sphere. Different tools are adopted, ranging from formalised consultative bodies (Village Councils) to public hearings and ad-hoc meetings with local authorities, NGOs and other key informants.

Village Councils have been established in the four rural districts around the Karachaganak Field, covering the eight villages closest to the Field. These consultative bodies were established in 2005 with a Memorandum of Understanding. Locally-trusted village residents, representatives from the local authorities and KPO experts meet regularly and on an hoc basis to discuss issues of interest or concern and receive updates on current and planned KPO activities. The Village Councils also identify priorities for KPO's social investment in the villages (see paragraph below). This dialogue enables KPO to respond to issues as they emerge

Issues identified by the Social Baseline Assessment	Stakeholders involved	New KPO Initiatives
Villages - restricted access to cultural/educational/social events outside the villages due to lack of transportation/ road conditions	Burlin District Department of Education Village Councils KPO Sponsorship Committee	Donation of buses to selected schools
Villages - outmigration due to difficulties in finding jobs in the rural districts	Burlin District Department of Agriculture and Small and Medium Enterprises Farmers International development agency	Design of a programme aimed at supporting economic and social life in rural districts
Aksai - desire for additional educational / cultural / entertainment opportunities	Aksai Youth Association KPO Sponsorship Committee	Sponsoring of the Cinema Project

and to develop opportunities which benefit both KPO and the neighboring communities.

In 2009, the Village Councils met a total of 22 times. A part from general topics, the Village Councils discussed the seismic survey to be done at the Karachaganak Field and surrounding area, the results of the Social Baseline Assessment and the social investment priorities for the rural districts (Village Council Projects).

The decline in the liveliness of the rural settlements is a recurring topic of concern, especially in the smallest settlement (less than 500 residents), where young people pursue higher education and do not settle in their home villages. Another issue of concern is the perceived environment deterioration having an impact on the health of residents and on crops and livestock. This perception dates back to the discovery of the Karachaganak Field in the 1980s (before KPO started operating the field) and still persists despite the robust environmental management and monitoring programme set up by KPO. In response to these concerns, KPO has commissioned a study on the potential impact of its operations on the vegetation, soil, surface water and livestock of surrounding communities, in cooperation with the Village Councils and a state licensed research institute. Conclusive results of this study are expected in 2010. Based on the perceived unhealthy environmental conditions, there is a desire for relocation among some residents. A civil case against the Republic of Kazakhstan's government is currently ongoing, initiated by three national NGOs. The claimants dispute the Government's conduct with reference to the determination of the boundaries of the SPZ for the Karachaganak Field and the right of Berezovka residents to be resettled.

Moving further from its immediate neighborhood, KPO also works to establish relations with the communities living along the pipeline connecting Karachaganak to Atyrau in order to identify and manage their concerns about the pipeline and associated operations and raise residents' awareness in terms of emergency prevention and response. In 2009, a dedicated Community Liaison Officer (CLO) was attached to the KPO project team engaged in constructing the Karachaganak Uralsk pipeline. The CLO supported the project team by establishing relations with those communities likely to be affected by the construction of the pipeline, keeping the dialogue open with them and managing the issues raised.



In addition, whenever KPO plans a new project which may have an impact on local communities, public hearings are run to share information on the planned activities and potential impacts, and to discuss any concerns. These hearings are held in different phases of project development. Public hearings are held in cooperation with the local authorities and are announced publicly in advance on local media. In 2009, KPO hosted four public hearings on projects, including the 3D Seismic Acquisition Survey, the landfill for industrial solid waste, the fourth train condensate pipelines and the second phase of the Karachaganak-Uralsk gas pipeline.

#### Case study Minimising impacts, maximising opportunities

A major seismic campaign was conducted in spring-autumn 2009 at KPO, covering the field and adjacent villages. Representatives of the eight villages around the field were invited to attend a public hearing in February, before the activities began. The hearing was aimed at discussing the scope of the survey, the planned activities, the foreseen impacts, and opportunities for the communities. Various additional meetings with the contractor were then held in each village as the survey approached their boundaries.

When selecting the site for the seismic team camp, KPO, the contractor and the local authorities also looked at minimising the risks connected with proximity to a large temporary settlement and maximising the opportunities for development. Once an area close to the Bestau village was selected, close cooperation with the residents, the local authorities, KPO and the seismic contractor allowed Bestau residents to benefit from the project in terms of priority in employment, opportunities to sell agricultural products to the project team and reconstruction of 6 km of road connecting the village to the main road.

#### Handling complaints

KPO has a formal policy in place for handling complaints. Every resident of the neighbouring villages has the right to raise a complaint, either verbally to a KPO Community Liaison Officer or in writing using dedicated forms and boxes installed in all the villages. The company will then investigate the complaint and make a proposal for settlement. In 2009, no significant complaints were raised through this mechanism. This could be due to the fact that a less formal way of filing complaints is preferred, namely by direct appeal to the KPO Community Liaison staff that often visit the villages, and to the fact that few operational activities were undertaken in 2009 that directly impacted the communities. KPO nevertheless has started revising this policy in order to ensure its effectiveness.

In addition, as IFC financing had been provided to one of the KPO joint-venture partners, residents from communities directly adjacent to field operations have

had access to the Compliance Advisor Ombudsman (CAO) Office. The CAO is an independent body that responds to complaints from project-affected communities in order to verify IFC compliance with its social and environmental standards, considered to represent the most advanced practices in terms of project management and to go beyond legal requirements in most countries.

Three complaints have been filed in recent years concerning the Karachaganak project by a US based non-governmental organisation (NGO) and a Kazakhstan-based NGO. They were all closed, the last one in 2009. This last complaint was related to concerns over air and water quality and the impact on the health of residents of Berezovka, one of the settlements around the Karachaganak Field, and to the size of the SPZ, the protected area defined by the government around industrial facilities such as Karachaganak. The CAO proposed that the parties undertake a multi-stakeholder meeting, facilitated by an independent, neutral facilitator contracted through CAO, in an effort to reach common understanding of their perspectives, interests, and ideas for resolution.

KPO accepted the proposal for a facilitated dialogue but, unfortunately, the NGOs refused it and instead requested a third CAO Compliance appraisal to determine whether an audit was merited. CAO Compliance conducted an appraisal and concluded that an audit was not merited. The case was then closed.

KPO remains, however, supportive of a constructive engagement with NGOs through facilitated dialogue and continues to interact with the residents of Berezovka through the Village Council. All documents related to CAO interaction with KPO can be found on the CAO website: [www.cao-ombudsman.org/cases](http://www.cao-ombudsman.org/cases)

#### SUPPORTING DEVELOPMENT

Improving livelihoods is a key aspiration for the communities around Karachaganak, and KPO strives to be supportive of these aims, complementing the efforts made by the local authorities.

#### Village Council projects

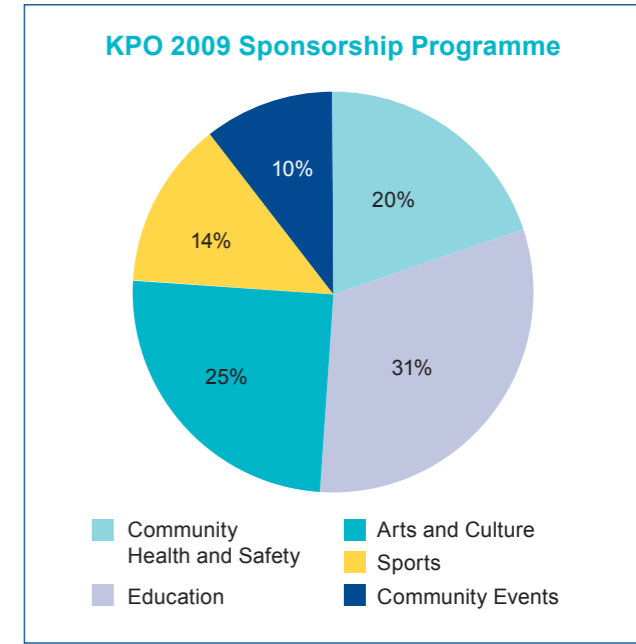
Priorities for involvement are proposed by community representatives in the Village Councils and mostly relate to upgrades of village infrastructure. Importance is also given to the social and cultural life of residents and to initiatives aimed at improving it.

KPO then evaluates the proposals received, in terms of alignment with community needs, overall priority, technical feasibility and budget associated, and a set of Village Council Projects is agreed and realised in the eight villages surrounding the field. Over the years, a balance of involvement is maintained across the different villages.

### Community Development Projects

Until 2009, KPO was running a microcredit facility aimed at providing citizens from the eight villages with low rate loans to set up/expand economic activities. Representatives of the organisation contracted by KPO to run this programme travelled to the villages on a regular basis and evaluated requests for loans. The

2009 Village Council Projects		Thousand USD
All villages	Summer spa health treatment for 165 elderly people and teachers	62,500
	Summer camps for 140 children	32,500
Priuralny	Purchase and installation of four boilers supplying heating to the local school, house of culture and library	64,000
Berezovka	Fencing off the Muslim Cemetery in Berezovka	22,000
Uspenovsky rural district <i>includes Uspenovka, its satellite Karakemir and Zhanatalap</i>	Provision of water pumps for the village technical water pump station	3,000
	Connecting the school in Uspenovka to the drinking water distribution network (installation of 300m of water pipe)	39,000
	Heat insulation of the clinic at Zhanatalap Village	11,500
Zharsuatsky rural district <i>includes Zharsuat, Dimitrovo and Karachaganak</i>	Renovation of the primary school in Dimitrovo village	48,000
Bestau	Repair of the well for livestock swill in Bestau village and installation of a new water tank	10,000
Total investment		292,500



programme went on for three years and, in 2008 alone around 90 residents received a loan. Unfortunately, in 2009 KPO had to terminate the contract with the organisation running the scheme due to an inability to reach an agreement on enhanced effectiveness and transparency. A new microcredit scheme is currently being developed.

In 2009, KPO has extended to the schools of Aksai the Mobile School of Art initiative, which was originally launched to bring applied art and craftsmanship to school children of rural villages as a way to enrich their education and enhance national traditions. Pupils are offered the opportunity to attend classes in the afternoon at the school premises free of charge. This initiative has proven to be very successful, to the point that some of the pupils have enrolled in art schools at the national level and three children were winners at the National Arts Competition sponsored by Chevron.

From the experience obtained with the Mobile School of Art, KPO is also considering launching a similar initiative to foster the learning of English in cooperation with the Village Councils and the Education Department of the Burlin District.

### Sponsorship programme

A dedicated fund administered by an internal committee in accordance with the KPO Sponsorship and Donation Policy enables KPO to support vulnerable groups and public associations active in the fields of community health and safety, education, arts and culture, and sports.

Through this programme, in 2009 we supported 45 different organisations for a total of about USD 370,000. We also engaged in dialogue with some associations to stimulate them to design initiatives aimed at promoting social development and quality of life. Thanks to this initiative, Tarlan Youth Public Foundation, based in Aksai, designed the «cinema project», aimed at providing citizens of Aksai with the opportunity to enjoy cinema-type experiences and spend time together, thus enhancing the sense of community.

The request for sponsorship was reviewed by the KPO Sponsorship Committee and approved. The project is expected to be launched in the first half of 2010.

In the area of promoting cultural heritage, KPO sponsored the WKO Historical and Archaeological Centre project to conduct archaeological excavation works in the Karachaganak industrial zone. In particular, the excavation of three monuments was sponsored. Materials discovered during the excavation will be restored and transferred to the local history museum in accordance with RoK legislation. A scientific report will be submitted to KPO.



## Data table

In order to ensure the relevance of the data provided in this performance table, and to conform to international best practice, we have used indicators from the Global Reporting Initiative indicator set. Air emissions data have been derived using the internationally recognised American Petroleum Institutes (API) methodology. For context explanation of the numbers below, please refer to relevant chapters.

### ENVIRONMENTAL DATA

GRI indicator addressed	ENERGY USE	Gas	Electricity	2009 Total	2008 Total	2007 Total
EN 3	Direct energy consumption by primary energy source (Megawatt hours)	915 682	7 100	922 782	864 341	818 484

### EMISSIONS TO AIR

EN 16 EN 20	Emissions to air (tonnes)	Flaring	Fuel use	Other	2009		2008		2007	
					Total	Total	normalised rate*	normalised rate	normalised rate	normalised rate
	Carbon dioxide	87 863	1 227 155	129 668	1 444 686	1 439 908	1 441 358	10 359	10 557	10 783
	Carbon monoxide	157	1 195	402	1 754	1 670	1 540	13	12	12
	Nitrogen oxides	58	2 684	679	3 421	3 439	3 001	25	25	22
	Sulphur dioxide	662	40	1 780	2 482	3 843	4 628	18	28	35
	Methane	328	234	27 921	28 483	27 730	27 185	204	203	203
	Volatile organic compounds	71	22	563	656	219	340	5	2	3
	Total greenhouse gases (tonnes of carbon dioxide equivalent)	94 747	1 232 068	716 022	2 042 837	2 022 236	2 012 248	14 649	14 826	15 054

### WASTE

EN 22	Type (tonnes)	2009 Disposal method				Generated in 2009	Generated in 2008	Generated in 2007
		Recycled	Landfill	Third party contractor	Stored on site			
	Solid	2 699	13 156	156	22 908	38 919	24 627	23 874
	Liquid (not including wastewater)	11 806	0	0	18 545	30 351	38 523	24 287
	Total	14 505	13 156	156	41 453	69 270	63 150	48 161

### WATER USE

EN 8	M3	2009 Water supply sources					2009 Total	2008 Total	2007 Total
		Kigach water intake (Atyrau)	Konchubai Gully water intake	Serebryakovsky water intake (Bolshoi Chagan)	Zharsuat intake				
	Total water use by source								
	Technical water	1 867	332 450			334 317	404 356	435 231	
	Potable water			1 554	191 205	192 759	180 219	129 047	

EN 10	Volume of potable water recycled	2009		2008		2007	
		M3	%	M3	%	M3	%
		42 762	22%	44 460	25%	63 891	50%

EN 21	Total water discharged:	Destination	Treated wastewater to field holding ponds		Storm run-off to adjacent steppe	2009 Total	2008 Total	2007 Total
			Thousand m <sup>3</sup>					
	By destination		119 167	0.865	19 238	139 270	121 651	104 605

### SAFETY DATA

	2009	2008	2007	
LA 7	Lost time injury frequency per million hours worked (LTIF)	0.13	0.11	0.05
	Total recordable case frequency per million hours worked (TRCF)	0.65	0.4	0.29
	Total fatalities	1	0	1

### WORKFORCE DATA

	2009	2008	2007	
LA 1, EC 7	Total number of employees	4 375	4 378	3 977
	Of which Kazakhstani nationals	3 755	3 571	3 268
	Percentage of total workforce nationalised	87%	87%	86%
	Percentage of managerial positions nationalised	49%	44%	41%
	Gender split in workforce (men/women)	3 186/1 189	3 224/1 154	3 004/973
LA 4	Percentage of workforce covered by collective bargaining agreements**	100%	100%	100%
LA 10	Average hours of training per year per employee***	67.2	103	99
	Training expenditure per year per (direct) employee****	5 569	4 500	4 900

### SOCIO-ECONOMIC DATA

	2009	2008	2007	
EC 6	Value of orders for goods and services placed with Kazakhstani firms (USD million)	683	537	456
	As a percentage of total purchases	49%	57%	54%
	Social infrastructure investment/Uralsk (USD million)	11.45	8.35	10
	Social infrastructure investment/Aksai (USD million)	-	10	-
	Community projects (USD million)	0.42	0.6	0.7
	Philanthropy (USD million)	0.37	1.3	0.7

Indicator	Page reference
EN 30	Environmental Expenditures 16
EN 11–EN 15	Biodiversity 21
EN 18, EN 23	Emissions, effluents and waste 16–21
EN 28	Compliance 08
EC 1	Economic performance 06
EC 6, EC 7, EC 9	Market presence 06

Note:

\* Tonnes per million barrels of oil equivalent

\*\* In 2008 Report we disclosed the figures of employees members of unions (27% in 2008 and 2007). Collective agreements though apply also to non union members, so the percentage of workforce covered by collective agreement is 100%

\*\*\* Average hour is calculated based on total national workforce (KPO direct and non-direct employees). Non direct employees were not included in 2008 and 2007 data.

\*\*\*\* Training expenditure per employee is calculated from the total national workforce (KPO direct and non-direct employees). Non direct employees were not included in 2008 and 2007 data.



# Verification statement



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## INDEPENDENT ASSURANCE REPORT

To the Management of Karachaganak Petroleum Operating b.v. ("KPO").

We have performed assurance procedures to provide independent assurance on the below-mentioned aspects of the 2009 sustainability report of KPO.

### Subject matter

Data and figures disclosed in the sustainability report of KPO and its consolidated facilities, for the financial year ended December 31, 2009 on the following aspects:

- The management and reporting processes with respect to the performance indicators and data ("Sustainability Related Information") as well as the control environment in relation to the aggregation of data contained in the Data Table on pages 38-39 in this sustainability report; and
- The 2009 environmental, workforce, safety and socio-economic performance indicators and data contained in the Data Table on pages 38-39 in this sustainability report.

Our assurance procedures are limited to the 2009 data only.

### Criteria

- The defined procedures and internal sustainability reporting guidelines, by which the Sustainability Related Information is gathered, processed and aggregated internally by KPO; and
- The "Sustainability Reporting Guidelines G3" ("GRI G3") published on October 2006 by the Global Reporting Initiative (GRI).

### Responsibility and Methodology

The accuracy and completeness of sustainability performance indicators are subject to inherent limitations given their nature and methods for determining, calculating and estimating such data. Our independent assurance report should therefore be read in connection with KPO's internal sustainability reporting guidelines, definitions and procedures on the reporting of its sustainability related performance.

The Management of KPO is responsible for both the subject matter and the criteria.

Our responsibility is to provide a conclusion on the subject matter based on our assurance procedures in accordance with the International Standard on Assurance Engagements (ISAE) 3000 "Assurance Engagements other than Audits or Reviews of Historical Financial Information", approved December 2003 by the International Auditing and Assurance Standards Board (IAASB).

### Main Assurance Procedures

Our assurance procedures included the following work:

Evaluation of the application of KPO sustainability reporting guidelines



- Reviewing the application of the KPO internal sustainability reporting guidelines relating to the Sustainability Related Information contained in the Data Table on pages 38-39 in this sustainability report; and
- Review of the KPO sustainability report against the criteria of the GRI Application level requirements.

### Site visits

- Visiting the Karachaganak field, selected KPO operational entities at the Karachaganak Field and KPO main office (the Main Office) in Aktau, Kazakhstan.
- Interviewing personnel responsible for internal sustainability reporting and data collection at the sites we visited and at the Main Office level to determine the understanding and application of KPO internal sustainability reporting guidelines.

### Assessment of the key figures

- Performing tests on a sample basis of evidence supporting data in the data table on pages 38-39 in this sustainability report concerning completeness, accuracy, adequacy and consistency.

### Review of the documentation and analysis of relevant policies and basic principles

- Reviewing the relevant documentation on a sample basis, including KPO sustainability policies, management and reporting structures and documentation.

### Assessment of the processes and data consolidation

- Reviewing the appropriateness of the management and reporting processes for sustainability reporting; and
- Assessing the consolidation process of data from the Data Table on pages 38-39 of this sustainability report at the Main Office level.

### Review of the KPO sustainability report

- Review of the KPO sustainability report against the criteria of the GRI G3 Application level requirements.

### Conclusions

In our opinion:

- The internal corporate sustainability reporting guidelines are being applied properly; and
- The internal reporting system to collect and aggregate the data contained in the Data Table on pages 38-39 in this report is functioning as designed.

Based on our work described in this report and the assessment of the Criteria:

- Nothing has come to our attention that causes us to believe that the performance indicators and data mentioned in the subject matter and disclosed in the sustainability report of KPO (Data Table on pages 38-39) does not give a fair picture of KPO's performance; and
- Nothing has come to our attention that causes us to believe that the 2009 KPO sustainability report does not meet the requirements of the GRI G3 Application Level of "C+"

Almaty, Kazakhstan  
April 9, 2010



# Glossary

Terms/Abbreviations	Definitions
Akim	Head of administrative region ( can be the village, town or region level)
FPSPA	Final Production Sharing Agreement
KPO	Karachaganak Petroleum Operating BV
Partners in the Venture or Parent Companies	Refers to BG, Eni, Lukoil and Chevron
WKO	West Kazakhstan Oblast
bcm	Billion cubic metres
Brundtland Commission	World Commission on Environment and Development
CAO	Compliance Advisor Ombudsman
CIS	Commonwealth of Independent States
CLO	Community Liaison Officer
CMS	Competence Management System
CO2e	Carbon dioxide equivalent
CPC	Caspian Pipeline Consortium
DLN	Dry Low NOX fuel
EIA	Environmental Impact Assessment
EMS	Environment Management System
EOPS	Early Oil Production Satellite
FIC	Foreign Investors' Council
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GRI	Global Reporting Initiative
H2S	Hydrogen Sulphide
HRA	Health Risk Assessment
HSE	Health, Safety and Environment
IFC	International Financial Corporation
IOSH	Institute of Occupational Safety and Health
ISO 14001	ISO 14001 is an internationally accepted standard that sets out requirements for putting in place an effective Environmental Management System (EMS)

IUCN	International Union for Conservation of Nature
KATS	Karachaganak-Atyrau Transmission System
KOGCF	Karachaganak Oil and Gas Condensate Field
KOGOA	Kazakhstan Oil & Gas Operators Association
KPC	Karachaganak Processing Complex
KPI	Key Performance Indicator
kt	Kiloton
LMP	Liquid Mud Plant
LTI	Lost Time Incident
LTIF	Lost Time Injury Frequency
LTP	Liquid Treatment Plant
Mboe	Millions of barrels of oil equivalent
MPC	Maximum permissible concentrations
Mscm	Million Standard Cubic Metres
NGO	Non-governmental organisation
NO2	Nitrogen dioxide
NOX	Nitrogen oxides
OGP	Oil and Gas producers
OHSAS 18001	OHSAS 18001 is the internationally recognised assessment specification for occupational health and safety management systems.
PCA	Parent Company Assignment
RKI	Rotary Kiln Incinerator
RoK	Republic of Kazakhstan
SO2	Sulphur dioxide
SPZ	Sanitary Protection Zone
STEP	Safety Training and Enhancement Programme
TCC	Thermo-Mechanical Cuttings Cleaning facility
tcf	Trillion cubic feet
TRIF	Total Recordable Injury Frequency
USD	Unites States Dollars



## FEEDBACK

Tell us what you think of this Report!  
Your views will help us to shape the 2010 edition.

KPO Sustainability

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PARTNERS IN THE KARACHAGANAK VENTURE

